MAX workflow

USER MANUAL

Version 3.7

GLOBAL GRAPHICS software





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MaxWorkFlow 3.7 User Manual

Version 3.7 February 2003 Part number: MWF-3.7

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1

Getting Started

1.1 Introducing MaxWorkFlow™

WELCOME to MaxWorkFlow™, the visual workflow design tool designed to automate the prepress production process. With the MaxWorkFlow Manager (referred to as MWF Manager in this manual) you use a simple to operate, graphical workspace to create complex prepress workflows from over 20 processing modules which provide everything you need to create job processing workflows, for example:

- a Raster Image Processor (RIP) that uses the latest Harlequin RIP technology, the acknowledged industry leader;
- an incredibly fast and powerful in-RIP object-based trapping solution;
- output to high-resolution proofing devices and image setters;
- workflow management tools that provide device load balancing, multiplexing and reprocessing capabilities;
- the ability to create PDF files, which are fast becoming the industry standard for storing and distributing documents;
- page splitting, imposition, source file optimization, downsampling, composite proofing, OPI, and more…

1.2 Installing MaxWorkFlow

MaxWorkFlow (MWF) is a Windows™ based application. Before attempting to install MWF make sure your system meets the requirements listed in Table 1.1, then proceed with the installation instructions that follow.

Component	Requirement
Processor	Pentium (600MHz or faster recommended)
Operating System	Intel Windows NT 4.0 Workstation* or Server, with SP6a Windows 2000 Professional*, or Server, with SP2 Terminal Server 2000 * Server required to run services necessary for Macintosh connectivity and FTP server
Minimum Disk space	500 MB free before installing. For fast disk access a 4 GB fast ultra-wide SCSI disk is recommended.
System memory	128 MB (256 MB recommended)
Network adapter	Ethernet 10 MB (Ethernet 100 MB recommended)
Applications	Internet Explorer 5.0 or greater Imaging for Windows
Server services	Internet Information Server service Macintosh services TCP/IP printing
Clients supported	Windows 95/98/ME/NT4/2000/XP Mac OS 8.1, 9.x or OS X

Table 1.1 MWF system requirements

1. Attach the supplied MWF security dongle to your computer.
2. Log on to Window as the administrator. This will ensure you have sufficient privileges to install MWF.

3. Insert the MWF installation disk. Open it in My Computer and double-click **Setup.exe** to start the MaxWorkFlow v 3.7 Setup wizard.

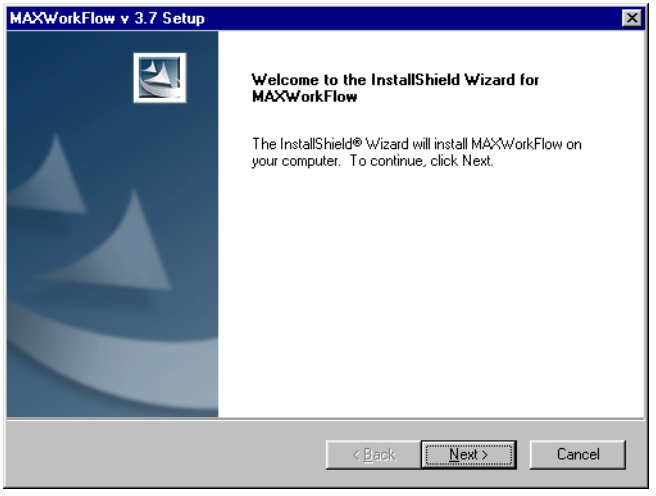

MAXWorkFlow v 3.7 Setup
Welcome to the InstallShield Wizard for MAXWorkFlow
The InstallShield® Wizard will install MAXWorkFlow on your computer. To continue, click Next.
< Back
Next >
Cancel

Figure 1.1 MaxWorkFlow v3.7 Setup wizard

4. Click Next in the wizard and follow the instructions in the wizard to complete the installation procedure. You must provide a valid MWF license file when prompted. The license file is provided on the floppy disk supplied with MWF.
5. When asked if you want to remove module security, we recommend that you click **Yes**. This will facilitate remote operations and will not compromise security on your computer or network.

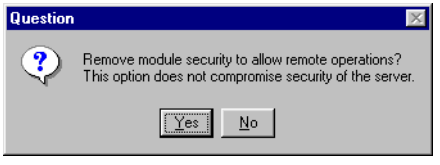


Figure 1.2 Click Yes to remove module security during installation

6. To finish the installation procedure, click **Finish** to exit the installation wizard.

1.3 Starting MWF Manager

The MWF Manager is the main program window of MWF. It contains tools and features which allow you to create digital prepress processing workflows, and monitor the progress of jobs as they are processed with MWF. For a detailed description of MWF Manager, refer to Chapter 2, "MaxWorkFlow Manager" on page 11.

To start MWF Manager, click **Start > Programs >MaxWorkFlow > MaxWorkFlow Manager**. Or double-click the **MFW Manager** icon added to your Windows desktop, if you selected this option during the installation procedure.

1.3.1 Starting the MWF from a command line

You can also start MWF from a command line. This allows you to enter additional parameters to control how the program starts. The command line format is as follows:

```
man.exe [-c:filename.cfg] [-start] [-min]
```

where:

`-c:filename.cfg`	loads the specified workflow
`-start`	starts the workflow
`-min`	starts MWF minimized

2

MaxWorkFlow Manager

MaxWorkFlow Manager (MWF Manager) is the main program window of MWF. It provides all the tools that you will need to create your digital processing workflows and allows you to monitor the progress of your print jobs as they progress along the workflow.

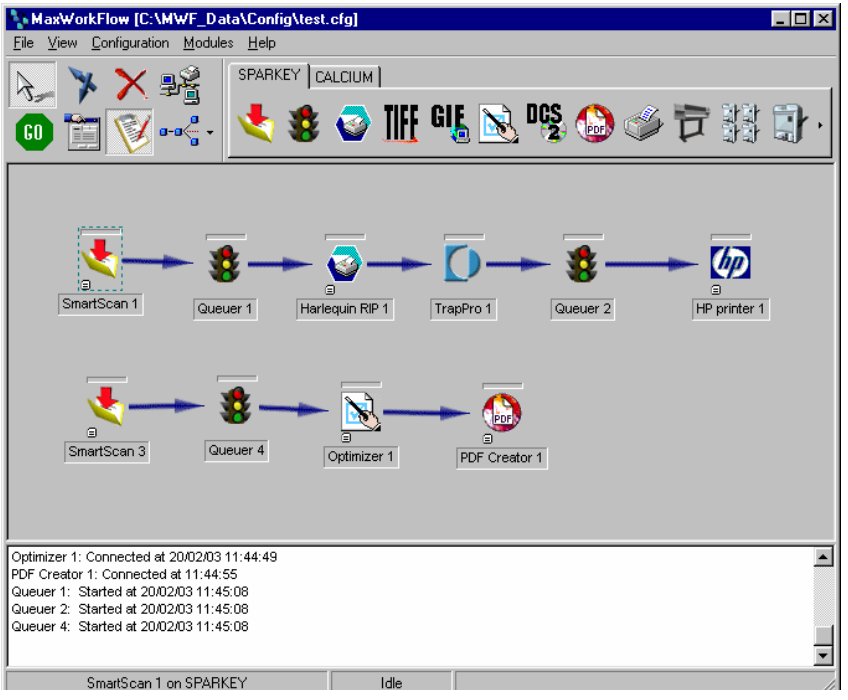


Figure 2.1 The MaxWorkFlow Manager

Jobs are processed in MWF by dropping modules onto the MWF workspace and linking them together to form a logical processing workflow. Each module has a set of options to control how jobs should be processed. Refer to the relevant chapter in this manual for a description of each option in a module.

2.1 MWF Manager tools

MWF Manager contains tools for creating workflows and configuring modules. Most of the tools remain inactive until you select a module on the workspace, then you can click a tool and use it to work with the module. Each tool is described next.



Selector

This tool is used to select items on the workspace. Until you select a module you cannot work with it. Click the tool then click the item that you want to work with, or drag a selection box around the items if you want to select more than one thing on the workspace.



Message Log

In MWF a message is generated whenever a module is placed on the workspace, is started or stopped, processes a job, or issues an error. To save these messages to a log file so they can be examined later, select the module that you want to record and click the Message logging tool. The location of the log file is determined by the **Log file directory** setting in the Manager Options dialog box, as described on page 15. A small icon appears beneath the module when message logging is enabled in the module.

You may also access this command from the **Modules** menu, or press **Ctrl+L** on your keyboard.



Link

Use this tool to link modules on the workspace to create workflows. The Link tool will not allow you to link modules that would cause an illegal operation in the workflow.



Change computer

This tool allows you to run the selected module on another MWF installation. Jobs entering a module that has been configured in this way are transferred to the remote MWF server where they are processed and returned to the originating server. See also Section 2.5 on page 19 for more information on networking MWF.

You may also access this command from the **Modules** menu, or press **F6** on your keyboard.



Delete

Use this tool to delete selected items on the workspace. Deleting a module does not delete its associated folders; these need to be manually removed from the server.

You may also access this command from the **Modules** menu, or press **Delete** on your keyboard.



Setup

This tool is used to access a selected module's setup dialog box, where module options can be configured.

You may also access this command from the **Modules** menu, or press **F5** on your keyboard





Pause

Use this tool to start and stop job processing in the selected module(s). The button shows the current state of the selected module.

You may also access this command from the **Modules** menu, or press **F2** on your keyboard to start or stop all modules on the workspace.



Auto Arrange

Use this tool to have MWF organize the modules that are on the workspace. Depending on which tool is selected from the drop-down list, the modules are automatically arranged in horizontal tree, vertical tree or line tree alignment. A certain amount of experimentation may be necessary to achieve the best layout with this tool.

You may also access this command from the **View** menu, or press **F8** for horizontal tree, **F9** for vertical tree, or **F10** for Line tree.

2.2 Manager options

MWF Manager has a set of options that control general settings for MWF. To access these options, open the Manager Options dialog box, by selecting the **File** menu and choosing the **Options** command, or by pressing **F3** on your keyboard.

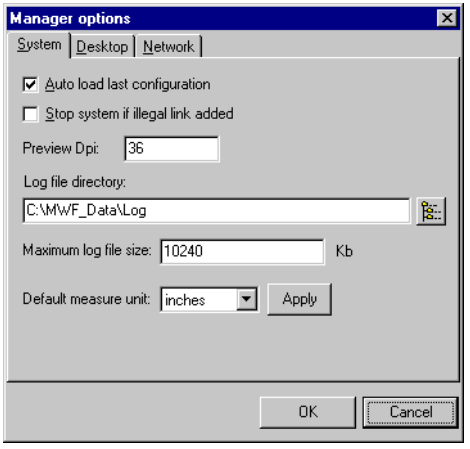


Figure 2.2 The MWF Manager options screen

The options are arranged into tabbed areas, each of which are described next.

2.2.1 Manager options: System tab

The System tab contains the following options:

Auto load last configuration

The last saved configuration is automatically loaded on the workspace when selected.

Stop system if illegal link added

When selected the system stops all job processing if a link is added to the workflow that causes an illegal link to be made. This option has little effect since the Link tool itself will not allow an illegal connection to be made.

Preview dpi

Allows you to specify the screen preview dpi (dots per inch) for image files held by the Queuer. The default is set to 36 dpi, which is usually adequate for most purposes. Should you require a higher resolution, first try 72 dpi or 96 dpi since high resolutions take longer to process, and consume more disk memory. The maximum allowed is 300 dpi.

Log file directory

Allows you to specify a location for the message log file `MWF.LOG`. Enter the folder location directly into the text box, or click the  button and navigate to the folder.

Maximum log file size

Allows you to specify a maximum file size for the log file `MWF.LOG`. When the maximum file size is reached, the log file is discarded and a new one is made.

Default measure unit

Allows you to choose the unit of measurement that you want MWF to use.

2.2.2 Manager options: Desktop tab

The Desktop tab contains the following options:

Colors

The color options allow you to choose the colors used by MWF to display links, selected objects, progress bars and the desktop background. The available colors are determined from your system settings; if you wish to adjust these enter the Display Control Panel in Windows and change the Color Palette to suite.

Show module name

When selected module names are shown for modules on the workspace. This enables module to be readily identified.

Show status icons in modules

Select this check box to enable status icon on the workspace. Status icons are used to indicate when message logging is enabled, or to indicate when a module is configured for remote processing.

Icon size

Allows you to choose the default icon size for modules on the Design palette.

Snap to grid

Enables the layout grid on the workspace, to which modules are aligned as they are placed on the palette. You can adjust the grid spacing by entering values in the two boxes, labelled **Horizontal** and **Vertical**.

2.2.3 Manager options: Network tab

The Network tab contains the following options:

Add

Click this button to add a remote MWF installation. Once a remote installation has been added, its modules appear in MWF Manager and they may be used in your workflows. Jobs entering a such a workflow is processed on the remote server, then returned to the workflow. See also Section 2.5 on page 19 for more information on networking MWF.

Remove

Click this button to remove a remote MWF installation. Once a remote module has been removed, its modules no longer appear in the module toolbar, however, any module in a workflow that has been added from a remote MWF installation will still run on that server.

2.3 Monitoring job processing in MWF

When you have set up and started a workflow, it is often necessary to monitor the processing of jobs to ensure everything is running smoothly and no errors are occurring. MWF allows you to do this by providing each module with a monitor window, like the one shown in Figure 2.3 below for the SmartScan module.

To open the monitor window, select the module and choose **View** from the **Modules** menu, or press **F4** on your keyboard. The monitor window can also be used to start and stop modules, and depending on the module that you are monitoring, can be used to release jobs or reprocess them. The module chapters contain details about the controls available in the monitor.

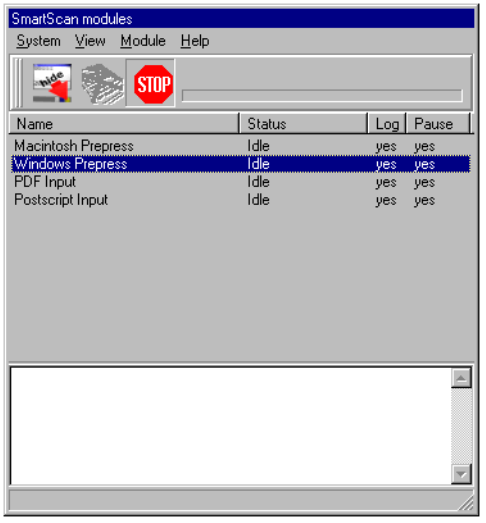


Figure 2.3 SmartScan monitor window

2.4 Module shortcut menus

Frequently used module commands may be accessed by right-clicking a module and choosing the appropriate command from a shortcut menu.

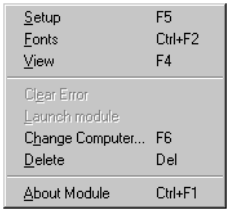


Figure 2.4 Module shortcut menu

Although each module uses a different shortcut module, certain commands are common throughout:

Setup Can be used to open a module's setup screen where module options can be accessed.

View Can be used to open the module monitor window.

Clear Error Can be used to clear an error which may have stopped a module from processing.

Launch module Can be used to restart a module that has been shut down on the workspace. Modules that are shut down appear disabled on the workspace.

Change computer Can be used to select a remote installation of MWF that will process jobs entering the module.

Delete Can be used to delete a module and remove it from the workspace.

2.5 Networking MaxWorkFlow

MWF is a powerful, server based application that is used to process jobs in a digital prepress environment. MWF exerts a heavy processing workload on the server, and, at times of increased workload, you may notice a degeneration of throughout.

To increase job output, MWF may be networked to other MWF servers to share job processing. Modules on the workspace can then be configured to run on these remote installations, freeing the resources of the central server to process other jobs. Completed jobs are returned to the central server, where processing continues.

To link two or more installations of MWF, the following conditions must be met:

1. MWF must be installed on all machines with a dongle and a license file. See Section 1.2 on page 8 for information on installing MWF.
2. Each installation of MWF must be visible in the Window's Network Neighborhood.
3. COM security must be disabled on each installation. Select this option during the MWF installation process.
4. Choose a MWF installation to act as the central, "master" server. This machine runs the processing workflows and distributes jobs to your other "secondary" MWF machines. Install MWF on your secondary machines but do *not* have the MWF Manager running as this will cause problems when you try to connect.

Once these conditions have been satisfied, select the module that you want to configure and press **F6** on your keyboard. In the Select computer window, choose the remote MWF installation and click **OK**. When you have done this, the workspace module appears with the  icon, and on the remote MWF machine an icon for the running module appears in the status area of the taskbar.

2.6 Saving and opening workflows

After creating a workflow it is a good idea to save it to disk so that it can be recalled at a later date. When saving a workflow, you save the workspace configuration, which includes all the modules and links that are present on the workspace, as well as all the module settings.

To save a configuration, click the **Configuration** menu and choose **Save**, or **Save as** to save a previously saved configuration with another name. Please note that saved workflows cannot be used on other installations of MWF. To do that you must use the export/import tools, as described in Section 2.7 below.

To open a saved workspace configuration, click the **Configuration** menu and choose **Open**. Before opening, the workspace will be cleared and you will be prompted to save any unsaved configurations.

2.7 Importing and exporting workflows

MWF allows you to import and export workflows so they can be used on other installations of MWF. An imported workflow contains all the modules, links and module options from the original configuration.

To export a configuration, click the **Configuration** menu and choose **Export**. To import a configuration, click the **Configuration** menu and choose **Import**.

2.8 Submitting jobs for processing

Jobs can be submitted to MWF using either a MWF Virtual printer, or through a MWF shared folder. Use a virtual printer when you want to process a page from an application, such as QuarkXPress™. Use a shared folder when you have a job in the form of PS, PDF or EPS that has already been created with a MWF printer correctly configured for the eventual output device.

Both these methods of submitting jobs require you to configure the SmartScan module to create the MWF printer and shared folder. Once this has been done, clients running document creating applications can use these resources to submit jobs directly to MWF for processing. For more information on creating g virtual printers and shared folders, refer to Section 4.2.1.2 on page 31 and Section 4.2.1.3 on page 34.

3

Example Workflow

To help you get started with MWF—and to show you how easy it is to create workflows—follow the instructions in this section to set up the example workflow shown in Figure 3.1.

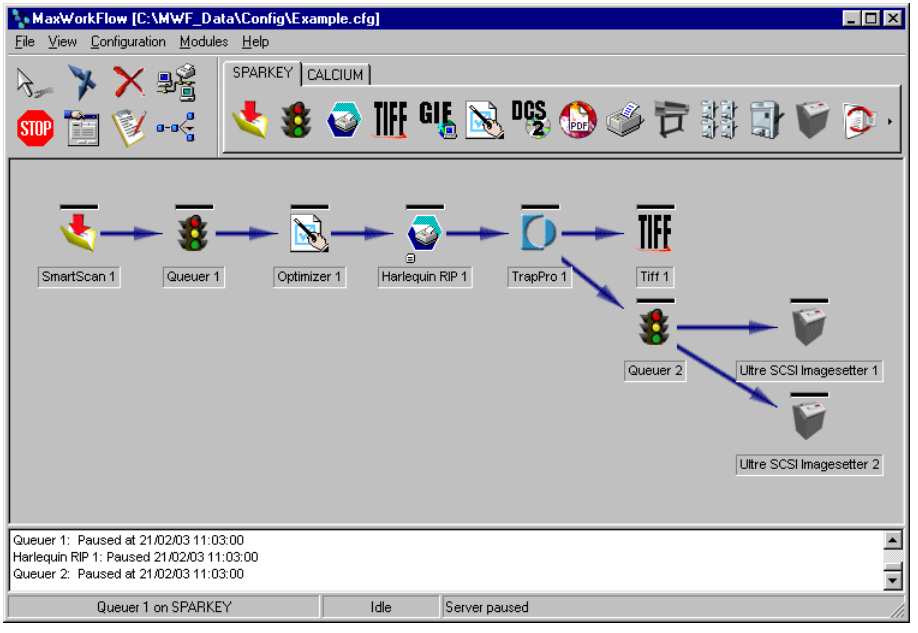


Figure 3.1 The example workflow

In the example workflow, jobs are received into the workflow and passed through the Optimizer module, which optimizes it for output and adds a low-resolution screen preview file into the job for OPI purposes. The job is then passed to the Harlequin RIP module which passes it to the TrapPro module for trapping, before rasterizing the page. Lastly, the page is output to an imagesetter and a TIFF image is created to provide a record of the page. Queuer modules are used in the workflow to facilitate job flow, and to hold jobs before being output to an imagesetter.

Step 1: Place and link modules on the workspace

1. Start by clearing the workspace. From the **Configuration** menu choose **New**. If prompted by MWF, save the existing workflow on the workspace if needed.
2. Place a SmartScan module on the workspace. Click the SmartScan module in the Module toolbar, as shown in Figure 3.2, and then click on the workspace to place the module.



Figure 3.2 The SmartScan module

3. Place the other modules that comprise the workflow on the workspace, these are: Queuer (2), Imposition (1), Harlequin RIP (1), TIFF (1), Ultre SCSI Imagesetter (2). Arrange the modules on the workspace using Figure 3.1 as a guide.

4. Create the workflow by linking the modules. Click the Link tool to select it. Click the first module in the workflow (the SmartScan module), and then click the second module (the Queuer module) to create a link.

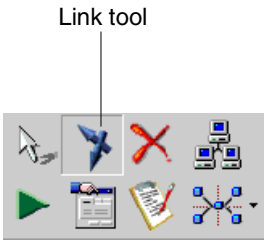


Figure 3.3 The Link tool

5. Complete the workflow by creating links between the other modules. Link the modules as follows:

SmartScan 1	→	**Queuer 1**
Queuer 1	→	**Optimizer 1**
Optimizer 1	→	**Harlequin RIP 1**
Harlequin RIP 1	→	**TrapPro 1**
TrapPro 1	→	**TIFF 1**, **Queuer 2**
Queuer 2	→	**Ultre SCSI Imagesetter 1**, **Ultre SCSI Imagesetter 2**

6. To tidy up your workflow, click the **Auto Arrange** tool's drop-down menu and select one of these options: **Horizontal Tree**, **Vertical Tree**, or **Line Tree**, depending on your particular preference.

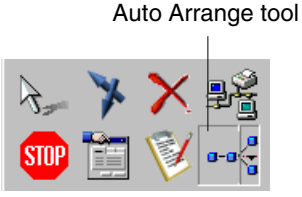


Figure 3.4 The Auto Arrange tool

7. Lastly, enable module message logging in the Harlequin RIP module. Although this has no effect on job processing, it is sometimes worthwhile capturing messages to monitor job processing, especially if jobs are failing to be processed correctly.

   To enable message logging, select the Harlequin RIP module and click the **Message Log** tool. When you have done this, a small icon will appear beneath the module to indicate that message logging is enabled for that module.



Figure 3.5 The Message Log tool

Step 2: Configure the modules

To produce the correct output, it is necessary to configure each modules in the example workflow. To access a module's options screen, right-click the module and choose **Setup** from the shortcut menu. The instructions that follow tell you how to configure the example workflow. Only those options which need changing from their default setting have been specified—for the purpose of this tutorial, most of the settings have been left at the defaults, but you may wish to enter your own settings depending on your requirements.

1. Configure the SmartScan module as follows:

   General tab:

   - Select all destination module check boxes.

Virtual printers tab:

- Select the **Windows printer** check box.
- In **Printer name** type `MWF Ultra94`.
- Click the **Explorer** button that is adjacent to PS Printer drivers, to open the PS Printer Drivers List screen. Click **New** to open the New Printer Driver dialog box, then click the **Explorer** button to open the Select file for new printer drivers dialog box. Select `Ultre_9.ppd` from the list and click **Open**. Enter `Ultra_94` in the Driver Name text box. Click **OK** to close the New Printer Driver dialog box, and then click **Close** to close the PS Printer Drivers List

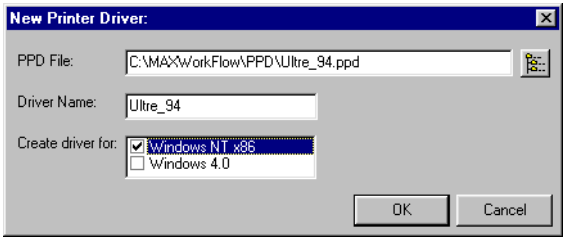


Figure 3.6 New Printer Driver dialog box with correct settings

- From the PS printer drivers list, choose the newly created `Ultra_94` driver.
- Click **OK** to close the SmartScan Setup dialog box.

2. Configure the Optimizer module as follows:

   General tab:

   - Select `EPS (Preview)` from the **Format** options.
   - Click **OK** to close the Setup for Optimizer dialog box.

3. Configure the TrapPro module as follows:

   - Select `TrapPro` from the **Trapping method** option. Note that you may need to enter a password to enable this feature.
   - Click **OK** to close the Setup TrapPro dialog box.

4. Configure the Queuer 2 module as follows:
   - To hold output for the devices until jobs are manually released or they are deleted, in the **Hold device** list select the check boxes for `Ultre SCSI Imagesetter 1` and `Ultre SCSI Imagesetter 2`.
   - Click **OK** to close the Queuer setup dialog box.

Step 3: Process jobs

1. To process jobs the modules in a workflow must be started. The easiest way to do this is to press **F2** on you keyboard.
2. In your page generating application, such as QuarkXPress, open a page that you want to process with MWF.
3. Print the page with the `MWF Ultra94` printer. Note that if you are printing the page from a client machine, that is, one that sends jobs for processing, you will need to add the `MWF Ultra94` printer to your list of installed printers. See Section 2.8 on page 20 for more information.

Step 4: Save the configuration

To save your new configuration, choose **Save** from the **Configuration** menu. Enter a name and a location for the configuration, and then click **Save**.

4

SmartScan



The SmartScan module accepts jobs into the workflow for processing. It monitors a scan directory and filters jobs before passing them on for further processing by the workflow.

4.1 SmartScan workflow

The SmartScan module is always the first module in a workflow since it's role is to receive jobs into the workflow for processing. SmartScan accepts PostScript® language files (PS and EPS), PDF documents and TIFF images.

4.2 SmartScan controls

Right-click the SmartScan module to display a pop-up menu showing all the configuration and viewing options:

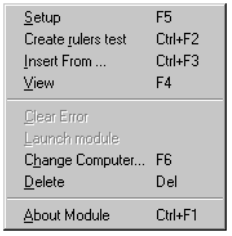


Figure 4.1 SmartScan pop-up menu

The following controls are available for the SmartScan module:

- **Setup**—This provides all the options required to create and configure the module. For more information see Section 4.2.1, “SmartScan”.
- **Create rulers test**—Use to calibrate vertical spacing on your output device. For more information see Section 4.2.2, “Create rulers test”.
- **Insert from**—This option allows you to sweep jobs from another folder into the SmartScan module. For more information see Section 4.2.3, “Insert from”.
- **View**—Choose this option to open the SmartScan Viewer, see Section 4.2.4, “SmartScan Viewer” for more information.

See “Module shortcut menus” on page 18 for details on the other general options in the pop-up.

4.2.1 SmartScan

To configure the SmartScan module choose **Setup** from the module pop-up menu or select the module and press **F5**. The SmartScan Setup dialog box opens. The options available are described in the following subsections.

4.2.1.1 General

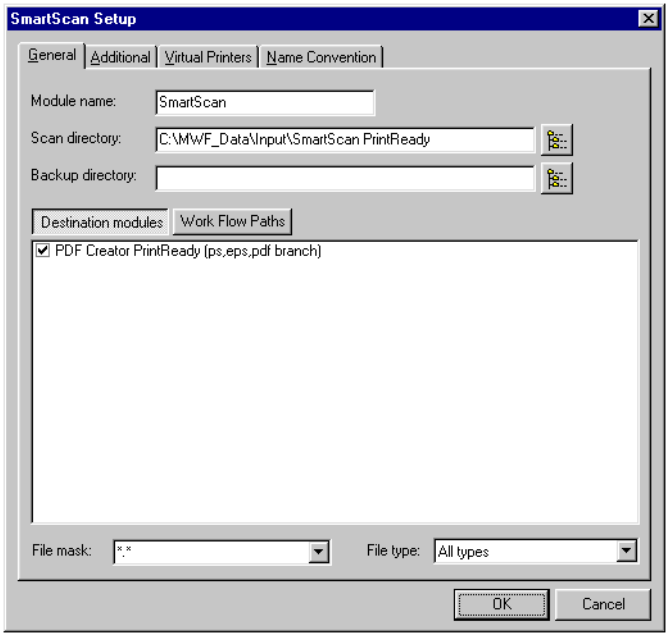


Figure 4.2 General tab

Module name

Allows you to enter a new name for the module. The name is used wherever the module is referenced: on the workspace; in log files; when linking to and from other modules.

Scan directory

Enter the location of a folder to accept incoming jobs, referred to as the *Scan directory*. MWF is able to process PostScript language files, PDF, EPS and TIFF images. Files that are not of these types are dealt with according to the error policy in force, which is defined in the Additional tab of the Setup dialog, described in “Error policy” on page 31.

Backup directory

After processing jobs in the Scan directory files are automatically deleted to save disk space. If you want to keep copies of the jobs then you can specify the location of a backup folder in the Backup directory text box.

Destination modules

After clicking this button all destination devices connected to the SmartScan module are listed in the window. Destinations include physical devices such as printers, imagesetters and plotters, as well as file format devices such as TIFF, GIF, DCS and PDF distillers. From the list, select the check box(es) that jobs will be directed to when they enter the SmartScan module.

Work Flow Paths

After clicking this button all workflow paths connected to the SmartScan module are listed. From the list, select the workflow path that you want jobs to follow when being processed.

File mask

Allows you to select which jobs will be processed according to the job file name. Only jobs which match the file mask will be passed on for processing. The drop-down menu contains several commonly used masks for filtering prepress files. You can also add you own mask by typing directly into the text box. You may also use the wildcards (`*`) and (`?`), which respectively represent zero or more characters in a string of characters, and any character at that position. For example:

`*.*`—*all* files matched

`*.ps`—*only* files with extension `.ps` matched

`xyz.*`—files called `xyz` with **any** extension matched

`xyz*.*`—matches files starting with `xyz` (for example, `xyz123.ps`)

`??z*.*`—matches files whose 3rd character is z (for example, `xyz123.ps`)

File type

This option allows you to accept jobs into the workflow according to file type. SmartScan is able to distinguish different file types based on information contained in the job. This option is useful for jobs submitted by Macintosh clients, which may not carry an extension to identify the file, for example
`.tif`, `.eps`, `.pdf`.

4.2.1.2 Additional

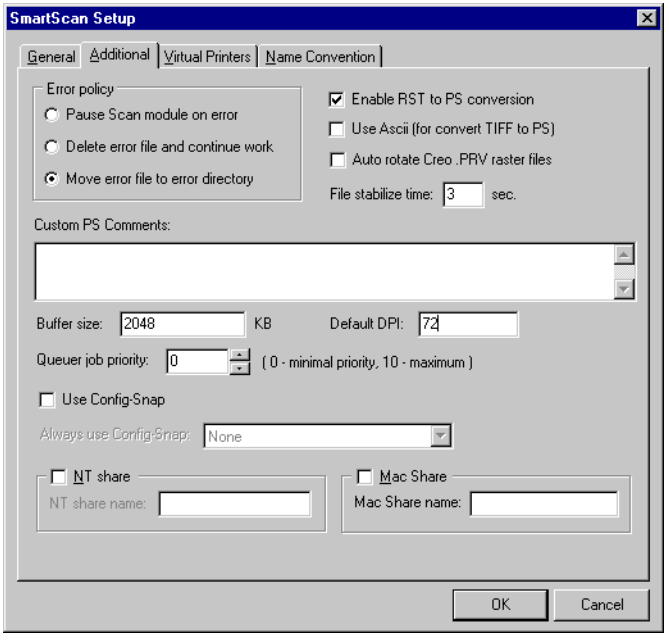


Figure 4.3 Additional tab

Error policy

Determines the action to take when an error file is encountered in the workflow. There are three options to choose from:

Pause scan module on error

Processing is halted until the error file is deleted and the module is started again.

Delete error file and continue work

The process is not interrupted but the error file is lost.

Move error file to error directory

The file is moved to `MWF_Data\Input\Scan<x>\Error` and processing continues.

Enable RST to PS Conversion

This feature encapsulates raster data (TIFF) with a PostScript language wrapper, producing a binary data file that can be processed by the RIP. This feature is enabled by default.

Use Ascii (for convert TIFF to PS)

Select this check box if you wish to convert TIFF file(s) to PostScript language files in ASCII format. This option is mainly used for (older) systems that cannot handle binary data.

Auto rotate Creo .PRV raster files

Select this option when it is necessary to rotate output files originally generated by Creo systems.

File stabilize time

Allows you to set a delay before files entering the scan directory are sent for processing, that is, before the job is passed to the next module in the workflow. This delay is necessary to ensure that all data has been written to disk before MWF attempts to read it. The default delay is 3 seconds, but you may wish to increase this depending on the job file size, or the latency factor inherent in your system (network speed, disk access time, and so on).

This feature is particularly useful when submitting files to the spool folder via an FTP process. If the SmartInput module tries to pick up a file for processing, before the FTP program has fully released it, the file may become damaged, or the workflow rendered inoperable. If you *are* using FTP, we suggest that you increase the File stabilize time to 10 or 15 seconds, which will allow the FTP program ample time to fully release the job to the input folder.

Custom PS comments

Use this scrollable window to append comments or PostScript language code to files entering the SmartScan hot folder.

Buffer size

Reserves an area of system memory for the spooling of files by SmartScan. The recommended setting depends on the amount of memory (RAM) in your PC:

- 128 Mb RAM set buffer to 2048 Kb
- 256 Mb RAM set buffer to 4096 Kb
- 512 Mb RAM set buffer to 8192 Kb

Queuer Job priority

Use this option to assign a priority number to jobs. The Queuer module uses this number to determine job processing order—that is, jobs with a high priority are processed before those with a low priority.

This option only works when a Queuer module is placed immediately after the multiple SmartScan modules or is preceded by only a PreCheck module. Modules such as the Optimizer and Page Splitter will discard the priority information.

Use Config-Snap

This option allows you to dynamically change module settings according to which of the SmartScan modules in the workflow receives a job. A'config-snap' takes a snapshot of the settings configured in each of the workflow modules and saves them to disk.

Select **Use Config-Snap** and choose a saved config-snap from the **Always use Config-Snap** drop down menu. When a job is received into the SmartScan module, SmartScan will update the workflow module parameters using the selected config-snap.

Default DPI

Enter a default resolution to be used if the incoming file does not specify a resolution. For example, some TIFF files created by digital cameras do not specify a resolution. The default value is set at 72 dpi.

Windows share

When selected, MaxWorkFlow creates a shared folder on the Microsoft network. This folder is known as a *hot folder* and users may place `PS`, `EPS`, `PDF` and `TIFF` files into it for processing. The hot folder name is defined by **Share name**, which will be the name seen by users on your network.

Macintosh share and **Share name**

This option is the same as for **Windows share** and **Share name**, except in this case the hot folder is published on an AppleTalk network.

Mac Share name

Enter the name of the hot folder as it will appear to Macintosh clients.

4.2.1.3 Virtual printers

The Virtual printers tab lets you create a network printer that allows clients to send jobs directly to the workflow from an application such as Microsoft® Word or QuarkXPress. The virtual printer generates the PostScript language

file and places it in the scan directory, where it is picked up by the SmartScan module and processed by the workflow. The controls in the tab are described next:

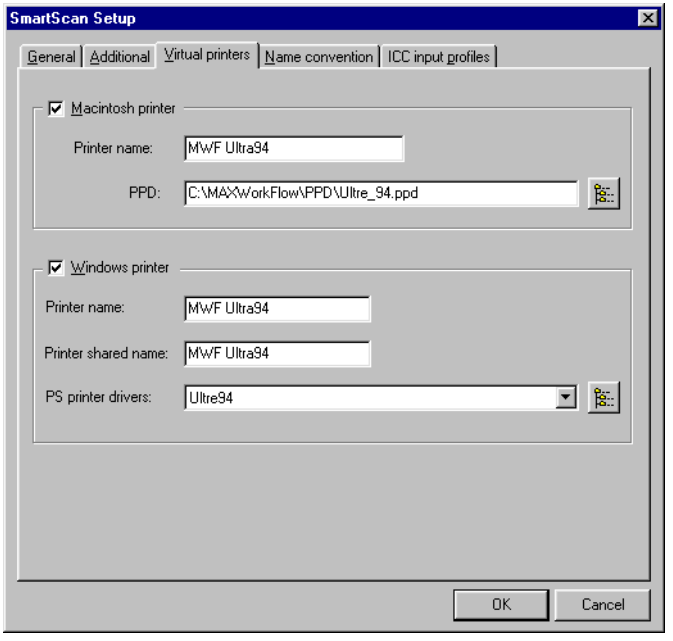


Figure 4.4 Virtual printers tab

Mac printer

Select this check box to publish the MWF virtual printer on an AppleTalk network. This allows Macintosh clients to submit jobs from an application, directly to MWF, by printing to the virtual printer. The virtual printer handles the PostScript language rendering process and places the job in the scan directory.

Printer Name

Enter a name for the virtual printer that will be published on the AppleTalk network.

PPD

Enter the location of the printer driver (PPD) used by the virtual printer. The default location for the PPDs used by MWF is `C:\MaxWorkFow\PPD\`. Depending on your installation, this location may contain several PPDs. Your supplier will be able to advise you on the appropriate PPD to use for the workflow you are setting up.

NT printer

Select this check box to publish the MWF virtual printer on an NT network. This allows Microsoft clients to submit jobs from an application, directly to MWF, by printing to the virtual printer. The virtual printer handles the PostScript language rendering process and places the job in the scan directory.

Printer name

Choose a name for the MWF virtual printer and type it in the text box.

Printer shared name

If you want to publish the printer on your NT network, enter a name that clients will see on the network when adding the printer, otherwise, leave this field blank. It is usual to use the same name for the shared printer as that used on the server, as specified in **Printer name**. However, when choosing a name, do not use the same name as a shared folder as this may problems.

If you have Windows 95/98 clients, the virtual printer name must not be more than 8 characters and spaces are not permitted. This limitation does not apply to Windows NT / 2000 clients, where you may use up to 50 characters, with spaces.

PS Printer drivers

This area lists the PostScript language printer drivers (PPDs) currently installed. You must select one of these to use with your virtual printer, or add another PPD to the list by clicking **Create PS Printer Driver**, and use that instead. When selecting a printer driver, use the most appropriate PPD for the workflow you are configuring. Contact your supplier if you are unsure which PPD to use.

Create PS Printer Driver

This button allows you to add a new PostScript language printer driver and assign a name to it. The driver then appears in the list of PS Printer drivers for you to choose.

Remove PS Printer driver

This button allows you to remove a printer from the list of PostScript language printers installed. This operation does not remove the printer from Windows, the printer is still available to choose.

4.2.1.4 Name Convention

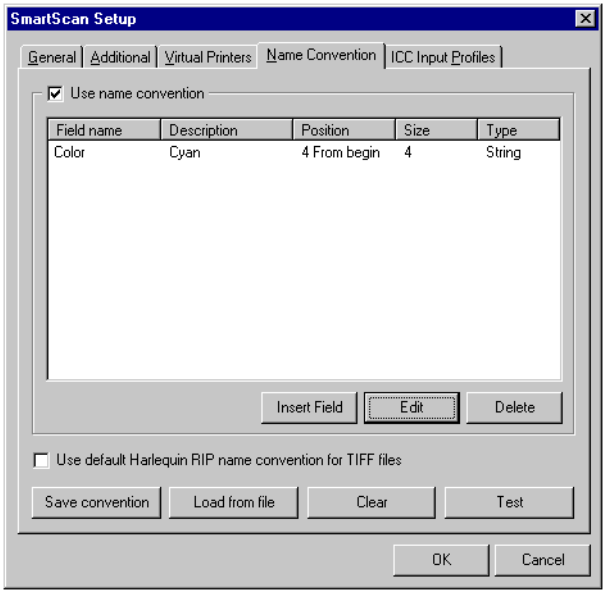


Figure 4.5 Name Convention tab

The Name Convention tab lets you choose how to define your job naming conventions. There are two basic options to choose from: set up your own naming conventions; or, for TIFF files, use the Harlequin naming conventions.

Using the Harlequin naming conventions

To use Harlequin naming conventions select the check box, **Use default Harlequin RIP name convention for TIFF files**. In general, the RIP names each file within a folder uniquely by combining characters from some of the following character strings:

- The page number of the job
- A stem—fixed or variable
- The name of the separation
- A sequentially increasing number
- A suffix

If the combined length of these character strings is sufficiently long, the RIP truncates the stem to stay within the maximum length of a file name on the computer running the RIP or an optional tighter limit providing greater portability between different types of computers.

Creating your own naming conventions

To set up your own naming convention rules select the check box, **Use name convention**, then click **Insert field** to access the Field Attributes dialog box, shown in Figure 4.6. Use the options in the dialog to set up naming convention rules.

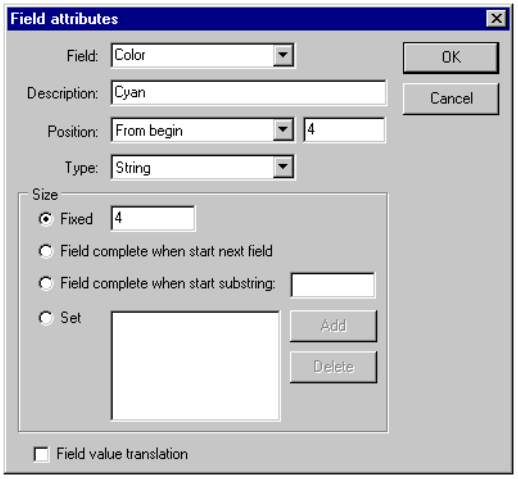


Figure 4.6 Field Attributes dialog box

The Field attributes dialog box contains the following fields:

Field — Choose a tag name for the naming convention. There are a number of predefined tags listed in the menu for you to choose from, that are subsequently used in other modules. You can also create your own tags by typing directly into the text box.

Description — Enter a brief description for your rule to help identify its purpose.

Type — Select the tag's field type from the drop down menu.

Position — Select where extraction begins in the job name. For example, `From beginning` begins extracting characters at the start of the job name. You can also specify an

offset character position to use in conjunction with Position, in which case extraction starts at the offset character position.

Size

Determine the overall length of the name convention field by choosing from the following options:

Fixed

Choose this option when your name convention needs to be of a certain fixed length.

Field complete when start next field

The size of the field is determined by the position at which another rule starts. For example, if another rule is setup to extract characters starting at position 10, then the last character used for this rule would be character 9.

Field complete when start substring

Characters are extracted until the defined substring (entered in the text box) is found. A common use of this rule is to specify a substring of `.ps` or `.tif` so that extraction stops when the job name suffix is reached.

Set

Characters are extracted until one of the values listed in the set is found. For example, you can set up a list of possible values - Cyan, Magenta, Yellow and Black for files that have the color name in their name. Use **Add** and **Delete** to manage the set list.

Field value translation

If you select this check box the Field translation dialog box is opened and is used to map an extracted field value to another value. For example, if the color of the file is encoded in the filename as a number—1 for Cyan; 2 - Magenta; 3- Yellow, and so on—you can setup the

translation table in such a way that those numbers being extracted from the filename, will be translated into the full color name.

When you have defined a rule you can test it to make sure it performs as intended. In the list, highlight the rule and click the **Test** button. In the dialog box that appears, locate the file to test and click **OK**. A pop-up dialog displays the result of the test, which you can use to verify that your rule worked successfully.

Save your rules by clicking **Save convention**, specifying a name and location. The other buttons in the Name Convention tab allow you to edit, delete, load and clear your rules.

4.2.1.5 ICC Input Profiles

International Color Consortium (ICC) profiles are industry-standard color profile definitions that describe the output characteristics of printers, printing processes, scanners, presses, and other equipment. The Harlequin RIP uses the ICC profile to ensure a job is ripped according to the color characteristics of the output device.

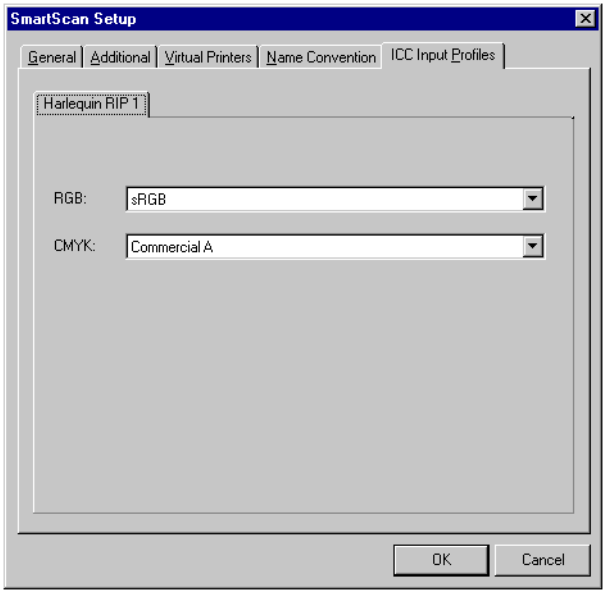


Figure 4.7 ICC Input Profiles tab

The options in the ICC Input Profiles tab are:

RGB Choose the ICC input profile for RGB color separations.

CMYK Choose the ICC input profile for CMYK color separations.

To implement ICC profiles you will also need to configure the Harlequin RIP module, as described in “Install ICC Profile” on page 110, as well as the relevant output module, refer to the module’s chapter in this manual for details.

4.2.2 Create rulers test

To test vertical and horizontal spacing on your output device you can create a calibration page by choosing **Create rulers test** from the module pop-up menu. The Rulers Generation dialog box opens, as shown in Figure 4.8.

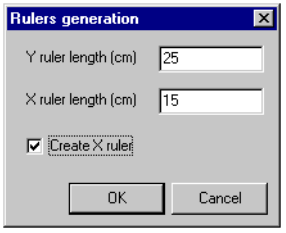


Figure 4.8 Rulers generation dialog box for leading calibration

Y ruler length (cm)

Enter the length of the vertical ruler to be printed.

X ruler length (cm)

Enter the length of the horizontal ruler to be printed. You must select the **Create X ruler** check box to enable this option.

Click **OK** to generate a calibration page that is sent along the workflow to the output device—an example of a simple workflow, needed to create a rulers test calibration on an imagesetter, is shown in Figure 4.9.



Figure 4.9 Example workflow to output rulers test calibration page

4.2.3 Insert from

The **Insert from** option (available in the SmartScan pop-up menu, see "SmartScan controls" on page 28) allows you to add jobs from a folder into the SmartScan module's scan folder. For example, you may want to resubmit jobs that have already been processed and stored in a backup folder, or submit jobs from another folder as and when the need arises.

From the Select directory dialog box (Figure 4.10) choose a folder where the jobs are located and click **OK**. It should be noted that files are *not* deleted from the Insert from folder, as is the case when using a scan directory. Also, job files which are not of the correct type, that is those that are not PostScript language files, EPS, PDF or TIFF images, are simply ignored and are not sent for processing.

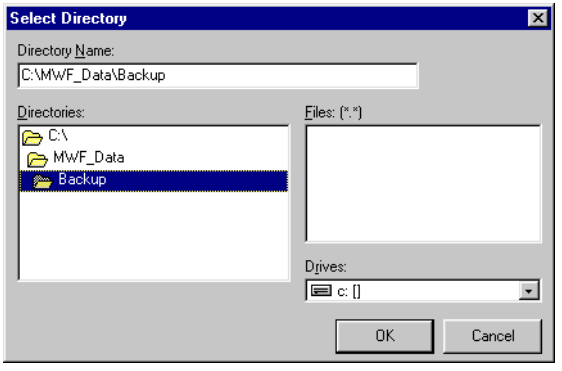


Figure 4.10 Select the folder to 'Insert from'

4.2.4 SmartScan Viewer

The SmartScan Viewer, shown in Figure 4.11, lists all SmartScan modules on the workspace and shows the processing activity, log file and pause status of each. There is also has a message log area where SmartScan messages can be observed.

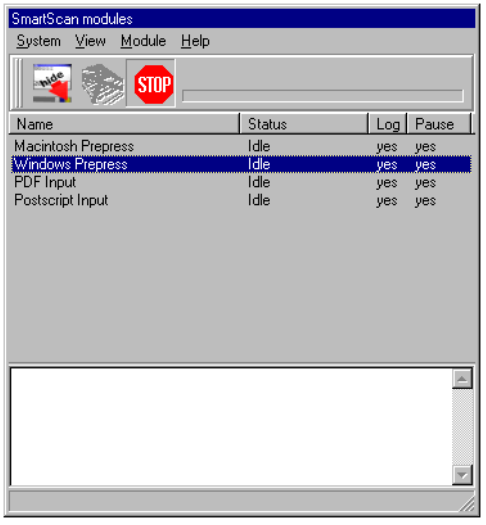


Figure 4.11 SmartScan Viewer

To open the Viewer window, double-click the SmartScan module, or right-click it and choose **View** from the pop-up menu. To close the Viewer click **Hide**. If you wish, you can detach the toolbar so that it floats on the desktop. Clicking **Hide** then shows/hides the module list, but leaves the toolbar visible. To completely close the Viewer, drag the toolbar back to the Viewer then click **Hide**.

From the Viewer you may start/stop SmartScan modules by selecting the relevant module and clicking **Start/Stop** in the toolbar You can also open the module's setup dialog box by choosing **System > Options**.

5

Queuer



The Queuer has two primary functions in the prepress workflow:

- it is used to hold jobs before they are sent to an output device so they can be inspected, redirected, deleted or reprocessed.
- it manages job flow between several alike devices so that each takes a fair share of the output workload.

5.1 Queuer workflows

The Queuer accepts all types of job files as it is simply a place to hold jobs and store them for future processing. Figure 5.1 illustrates two workflows involving the Queuer. In the uppermost example the Queuer is used to manage output for two imagesetters, ensuring that jobs are shared equally between the

two devices. In the second example, the Queuer is used to hold jobs before they are sent to an imagesetter for final output. The operator is able to view the image file before it is printed, to ensure the image is satisfactory.

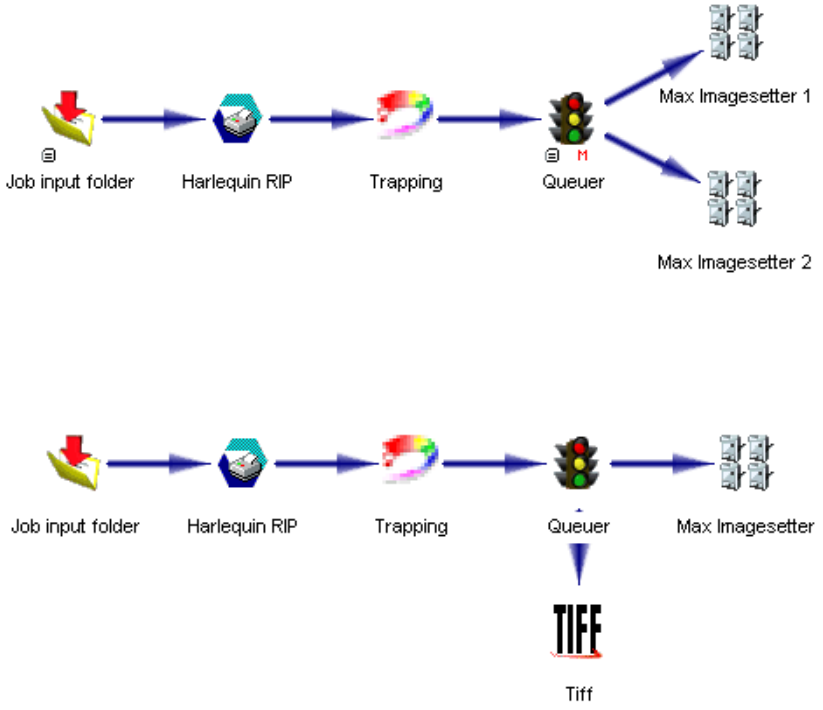


Figure 5.1 Queuer workflows

5.2 Queuer controls

Right-click the Queuer module to display a pop-up menu showing all the configuration and viewing options, Figure 5.2.

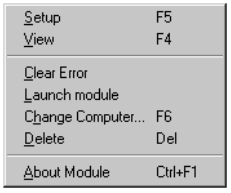


Figure 5.2 Queuer module pop-up

The following controls are available for the Queuer module:

- **Setup**—This selection provides all the options required to create and configure the Queuer, as described in Section 5.2.1, “Queuer setup”.
- **View**—This provides a list of jobs which are currently held in the Queuer, as well as a list of jobs which have already passed through it. For details on the Viewer window see Section 5.2.2, “Queuer Viewer”.

See “Module shortcut menus” on page 18 for details on the other options in the pop-up menu.

5.2.1 Queuer setup

To configure the Queuer module, choose **Setup** from the pop-up menu to display the Queuer setup dialog box, shown in Figure 5.3.

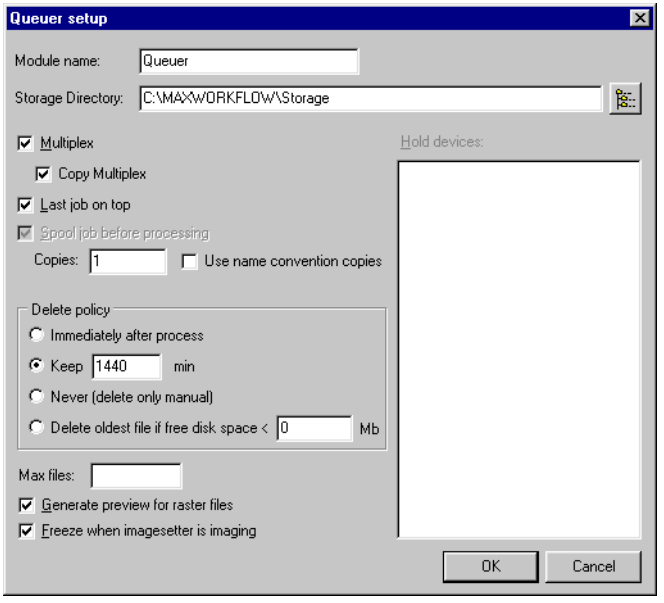


Figure 5.3 Queuer Setup dialog box

The dialog contains the following options:

Module Name

Allows you to enter a new name for the module. The module name is used wherever the module is referenced: on the workspace; in log files; when linking to and from other modules.

Storage directory

This option is used to set the folder location for jobs entering the Queuer module. Files are held in the folder until they are deleted according to the **Delete policy** setting, described below. The default location is set to `C:\MAXWORKFLOW\Storage` (if you installed the application on the `C:` drive), although you may enter your own location directly into the text box, or by clicking the button to the right and navigating to a folder.

Multiplex

When this option is selected job output is distributed evenly between connected output devices, ensuring that each device is used in turn. Figure 5.4 shows an example workflow where a pair of imagesetters are used to output ripped jobs. The Queuer module, set to multiplex, shares the output between the two imagesetters, ensuring that both are used. This feature only works with hardware devices that have a bi-directional communication capability, examples of which include Highwater Cards, LPT1, LPT2, and so on. This is not a software spooling function. The option is not selected by default.

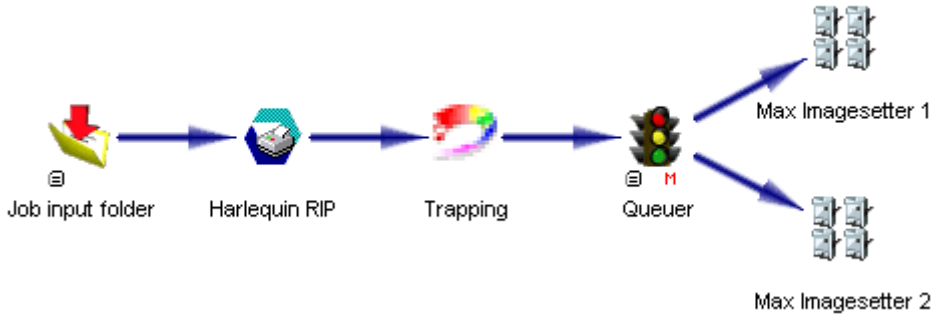


Figure 5.4 Multiplexed workflow

Copy Multiplex

This control has no function in this release of MWF. It will be implemented in a future release of the product.

Last job on top

When this check box is selected the latest job entering the Queuer is placed at the top of the job list and is consequently released from the Queuer prior to those jobs which entered before it. It should be noted however, that jobs with higher priorities take precedence and will be released before jobs with lower priorities. See *Queuer Job priority* on page 33 for details on determining job priority. This option is selected by default.

Spool job before processing

When this option is selected the job is spooled to disk and allowed to stabilize before it is processed any further. This ensures that all of the job file is present before processing commences. The disadvantage of selecting this option is that it may result in longer processing times, since the module waits a short period for each file to be become stable. We therefore recommend that you select this option only if you are experiencing spooling issues, which may result in damaged files.

Delete policy

Select an option to determine when files are removed from the Queuer storage folder. This is an important factor to consider when setting up your workflows. Disk space can quickly fill up when too many files are retained, especially complex graphics that may themselves contain large previews. MWF will shutdown any workflow where it is unable to retain a file due to lack of storage space.

Choose from one of the following options:

`Immediately after processing`
: Files are never saved in the storage folder, they are deleted immediately after processing.

`Keep` *`nnn`* **`minutes`**
: Files are retained for the specified period, after which they are deleted.

`Never (delete only manual)`
: Files must be manually deleted from the storage folder. If you choose this option, ensure that your disk space does not become overloaded before deleting files manually.

`Delete oldest file if free disk space <` ***`nnn`*** **`MB`**.
: Retain files until the stored files reach a disk space limit, at which point the oldest files are deleted until the free disk space is greater than the limit.

Generate preview for raster files

When selected, a preview image is generated for TIFF and EPS image files entering the Queuer. The image preview may be inspected in the Queuer Viewer, and appropriate action taken by the operator after viewing. To facilitate this, turn on **Hold devices** for the output module and the job will be held in the Queuer until it is released, deleted or reprocessed by the operator.

The resolution (dpi) of the preview image is set in the System tab of Manager options—refer to *page 15* for more information on setting this option.

Freeze when imagesetter is imaging

Select this check box to ensure that priority is given to an Imagesetter module during data transfer to prevent data under run. It is *not* necessary to select this option if your imagesetter can automatically start and stop in the case of data under run.

It should be noted that when this option is selected the Queuer does not accept jobs, nor can it release jobs while the imagesetter is being written to. Be mindful that this could seriously stall the workflow on a regular basis. A solution to this problem is to set up a double Queuer workflow, as shown in Figure 5.5. Connect Queuer 1 to the Imagesetter and Queuer 2 to another output modules, such as a TIFF module. Set Queuer 1 to **Spool job before Processing** so that it does not stall the pipe-

line between the RIP and Queuer 1 as the imagesetter starts to write. This way it frees up the RIP to open the pipeline to Queuer 2 and allows the RIP to write freely to it without interruption.

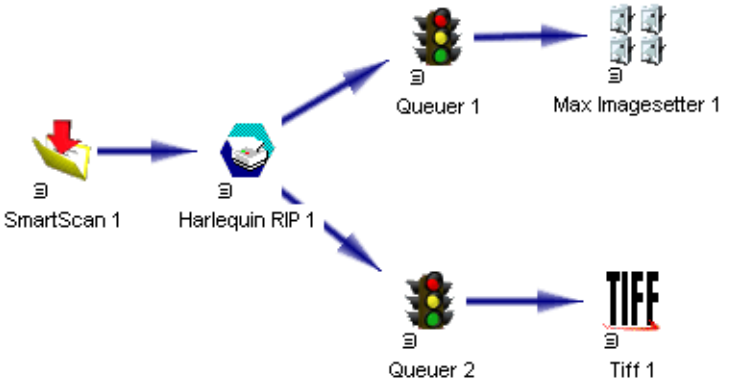


Figure 5.5 Workflow with double Queuer modules

Hold devices list window

Shows the list of output devices that are attached to the Queuer and is used to select which devices should have their jobs held by the Queuer. When the Multiplex option is selected, any devices selected are overridden by multiplexing.



Figure 5.6 Hold devices window

5.2.2 Queuer Viewer

The Viewer window, shown in Figure 5.7, shows jobs that are currently held, pending release for when the destination module becomes available. The Viewer also lists those jobs that have passed through the Queuer and have been retained, possibly for re-processing at a later date. To open the Viewer, right-click the Queuer module and choose **View** from the pop-up menu. Alternatively, press **F4** on the keyboard.

The Viewer is split into two main areas: the upper area lists jobs that are currently waiting to be released from the Queuer; the lower area lists jobs that have been processed, and which have been retained for possible future processing. These jobs are stored on the hard disk in the Storage folder, as specified in the Queuer setup dialog box, described in “Storage directory” on page 50.

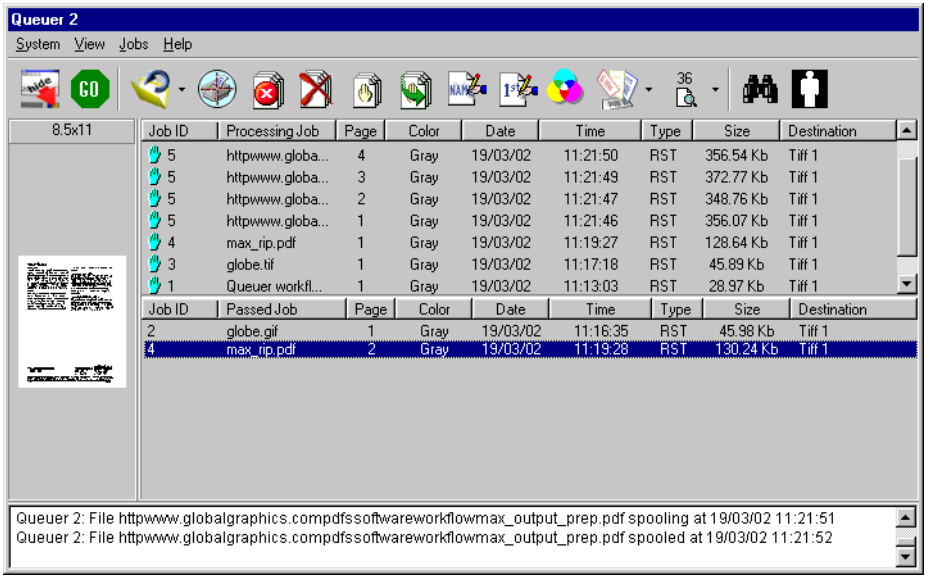

Queuer 2
System View Jobs Help
8.5x11
Job ID Processing Job Page Color Date Time Type Size Destination
5 httpwww.globa... 4 Gray 19/03/02 11:21:50 RST 356.54 Kb Tiff 1
5 httpwww.globa... 3 Gray 19/03/02 11:21:49 RST 372.77 Kb Tiff 1
5 httpwww.globa... 2 Gray 19/03/02 11:21:47 RST 348.76 Kb Tiff 1
5 httpwww.globa... 1 Gray 19/03/02 11:21:46 RST 356.07 Kb Tiff 1
4 max_rip.pdf 1 Gray 19/03/02 11:19:27 RST 128.64 Kb Tiff 1
3 globe.tif 1 Gray 19/03/02 11:17:18 RST 45.89 Kb Tiff 1
1 Queuer workfl... 1 Gray 19/03/02 11:13:03 RST 28.97 Kb Tiff 1
Job ID Passed Job Page Color Date Time Type Size Destination
2 globe.gif 1 Gray 19/03/02 11:16:35 RST 45.98 Kb Tiff 1
4 max_rip.pdf 2 Gray 19/03/02 11:19:28 RST 130.24 Kb Tiff 1
Queuer 2: File httpwww.globalgraphics.compdfssoftwareworkflowmax_output_prep.pdf spooling at 19/03/02 11:21:51
Queuer 2: File httpwww.globalgraphics.compdfssoftwareworkflowmax_output_prep.pdf spooled at 19/03/02 11:21:52

Figure 5.7 Queuer Viewer

Each job in the Viewer is listed with the following information:

Job Id An identification number assigned to each job. Separated jobs (CMYK) are assigned the same id number, since they are part of the same job.

Processing job and Passed job

The file name of the job. You may change the job name by using the **Change name** tool, as described in "Change names" on page 65.

Page The page number of the job when the job consists of multiple pages.

Color The color designated from the final output specifications. For example, CMYK composites are Device CMYK, monochrome separations are Cyan, Magenta, Yellow, Black.

Date Date the job was submitted to the Queuer module.

Time Time the job was submitted to the Queuer module.

Type File type for the job.

Size Memory byte size of the job file.

Destination Final destination output module for the job.

5.2.2.1 Viewer toolbar

The Viewer toolbar, shown in Figure 5.8, contains tools for manipulating jobs listed by the Queuer. Some of the buttons in the toolbar are applicable to only one of the lists (processing jobs or passed jobs) and consequently appear dimmed when the tool is not available for a particular job



Figure 5.8 Viewer toolbar

The controls in the toolbar work on *selected* jobs as follows:

Hide window



Closes the Viewer window.

Go / Stop



This tool starts / stops the Queuer module. In MWF a module must be started before it can process jobs. The button displays the *current* go/stop status of the Queuer module; clicking the tool switches the module to the alternative state, and the button icon changes accordingly.

Reprocess selected jobs



Reprocesses jobs that have already passed through the Queuer, but which have been retained for future processing in the passed jobs list. The job is directed to the device as specified when the job was originally submitted. If you want to redirect the job to a different device, then you should use **Redirect selected jobs**, as described next.

Redirect selected jobs



Redirects jobs that have been retained by the Queuer for future processing (listed in the passed jobs area of the Viewer) to a different output device. From the Select destination devices dialog box, shown in Figure 5.9, select the new output device and click **OK**. The jobs are then moved into the processing jobs queue, where they are subsequently released to the destination device.



Figure 5.9 Select a destination device

Abort jobs



Aborts jobs and removes them from the list of jobs waiting to be processed. The jobs are also deleted from the hard drive, so they must be resubmitted if they are required again.

Delete



Removes jobs from the passed jobs list and deletes them from the storage folder.

Hold jobs



Holds jobs in the Queuer. Jobs may be subsequently released using the **Release jobs** tool. A hand symbol  appears next to any held job.

Release jobs



Releases *held* jobs from the Queuer. According to the delete policy in force (see page 52), when a job is released it is either placed in the passed jobs list, or it is removed from the Queuer and deleted from disk.

Change job name



Changes the name of the selected job, listed in the Queuer. Click the tool and enter the new job name in the dialog box that appears.

Change job priority



Changes the priority of the selected job. In MWF, jobs are released from the Queuer according to priority, so that a job with priority 10 is released before a job with priority 0. Jobs are initially assigned a priority as they enter the SmartScan module, configured in the Additional tab, as described on page page 31.

Compose files



Combines only *selected* CMYK separations into a composite image, then shows the resulting image in the Preview window, as shown in Figure 5.11, page 60. You can also use this tool to "soft proof" individual separations. See also, Composed job preview below.

Note: This tool can *only* combine separations that have subsequently passed through the Harlequin RIP module.

Compose job



Combines all CMYK separations for a job into a composite image, then shows the resulting image in Preview window, as shown in Figure 5.11. Similar in operation to the Compose files tool, but you need only select one of the job separations to view the composed job.

Custom preview generation



Creates a preview image of a selected separation at a particular resolution. The resolution currently chosen is displayed above the icon. To choose another resolution, click the arrow and choose a resolution from the menu. To add an alternative resolution to the menu, choose **Custom DPI** and enter a resolution in the Enter DPI for Preview text box.

Search



Locates jobs in the Queuer according to some specified search criteria. The Search dialog box, shown in Figure 5.10, allows you to search on any aspect of job detail—job id, page number, job size, format type, and so on. Any jobs found matching the search criteria are highlighted in the Viewer.

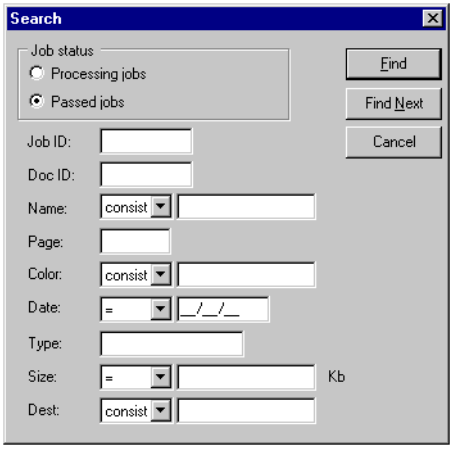


Figure 5.10 Queuer Search dialog box



Show negative preview (Ctrl+N)

Previews images as negatives. When this option is selected, the icon image is shown as a negative.

5.2.2.2 Preview window

The preview window can be used to view raster images and PostScript language files with embedded preview images for jobs that are listed in the Queuer module. You can also preview a composite image by selecting the separated plates then clicking **Composed preview**. If there is a Harlequin RIP module in the workflow, previews can only be generated in a pre-RIP Queuer Viewer window if a post-RIP Queuer is *also* present in the workflow.

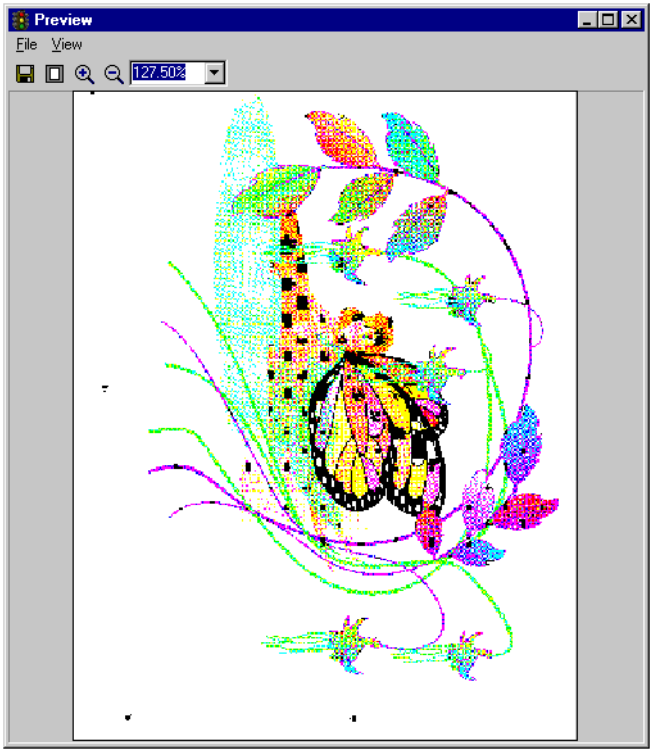


Figure 5.11 Preview window

The following controls are used in the previewer:



Saves the preview image to disk. Click the tool then specify a file name and choose to save the image in either BMP or TIFF format. You can also use the mouse to make a selection in the preview window and save the selection by using the **Copy** item in the **File** menu.



Resizes the preview image to fit within the preview window. It is also accessible by choosing **Fit to best** from the **View** menu.



Increases magnification of the image by zooming in with every click. You can also zoom using the drop down zoom menu, which is located to the right of the tools.



Decreases magnification of the image by zooming out with every click. You can also zoom using the drop down zoom menu, which is located to the right of the tools.

5.2.2.3 System menu

Start

This menu item starts the Queuer module allowing it to process jobs.

Options

Opens the Queuer Setup dialog box used to configure Queuer options such as name, storage directory, hold devices and so on. This dialog box is described in Section 5.2.1.

Spot colors

Choosing this menu item opens the Spot Colors window, as shown in Figure 5.12. All spot colors present in your MWF system are listed, along with their component color density values and a preview of the color. If you want to change a spot color, click the CMYK value and enter a new

value directly into the text box. The spot color preview changes to reflect the new value. The other controls available in this dialog box are described next.

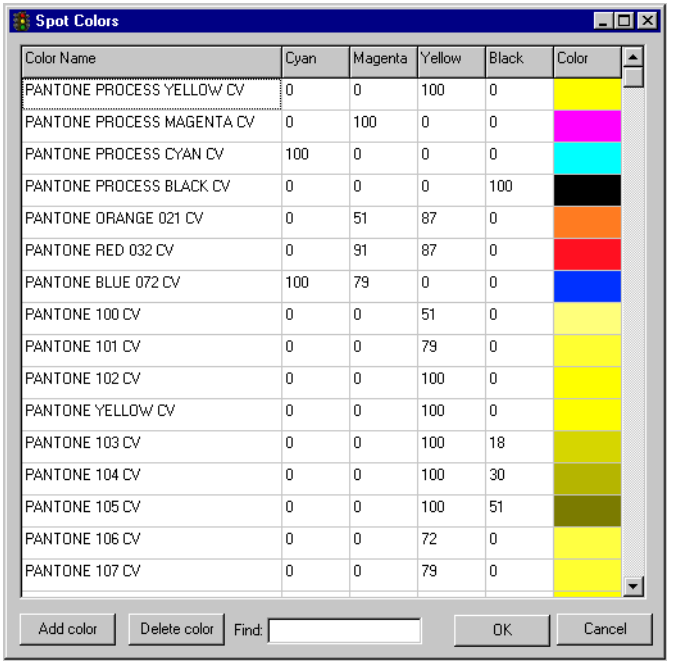

Spot Colors
Color Name
Cyan
Magenta
Yellow
Black
Color
PANTONE PROCESS YELLOW CV 0 0 100 0
PANTONE PROCESS MAGENTA CV 0 100 0 0
PANTONE PROCESS CYAN CV 100 0 0 0
PANTONE PROCESS BLACK CV 0 0 0 100
PANTONE ORANGE 021 CV 0 51 87 0
PANTONE RED 032 CV 0 91 87 0
PANTONE BLUE 072 CV 100 79 0 0
PANTONE 100 CV 0 0 51 0
PANTONE 101 CV 0 0 79 0
PANTONE 102 CV 0 0 100 0
PANTONE YELLOW CV 0 0 100 0
PANTONE 103 CV 0 0 100 18
PANTONE 104 CV 0 0 100 30
PANTONE 105 CV 0 0 100 51
PANTONE 106 CV 0 0 72 0
PANTONE 107 CV 0 0 79 0
Add color
Delete color
Find:
OK
Cancel

Figure 5.12 Spot Colors window

Add color

Use this control to add new spot colors to the list. In the Spot Color Editor dialog box (Figure 5.13) enter a name for the new spot color and set percentage density values for each color component.

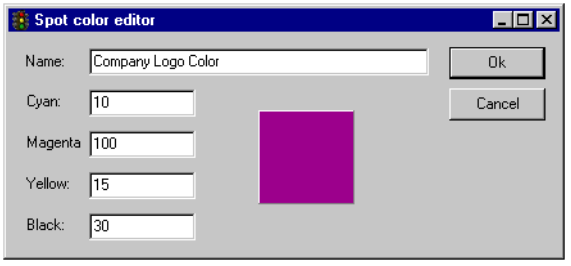


Figure 5.13 Spot Color Editor dialog box

You can also add spot colors by right-clicking the print job in the Queuer Viewer window and choosing **Add spot color** from the pop-up menu. The spot color name is taken directly from the name of the color plate.

Delete color

This button deletes a selected spot color from the list.

Find

Allows you to search the list for a spot color. Enter the name of the spot color to dynamically search the list and highlight the spot color.

OK

Saves changes that you may have made and closes the dialog box.

Cancel

Click this button to dismiss the window without saving any changes that you may have made.

5.2.2.4 View menu

The View menu allows you to show and hide areas of the Queuer Viewer. Figure 5.14 shows the various parts of the window that can be toggled from the View menu.

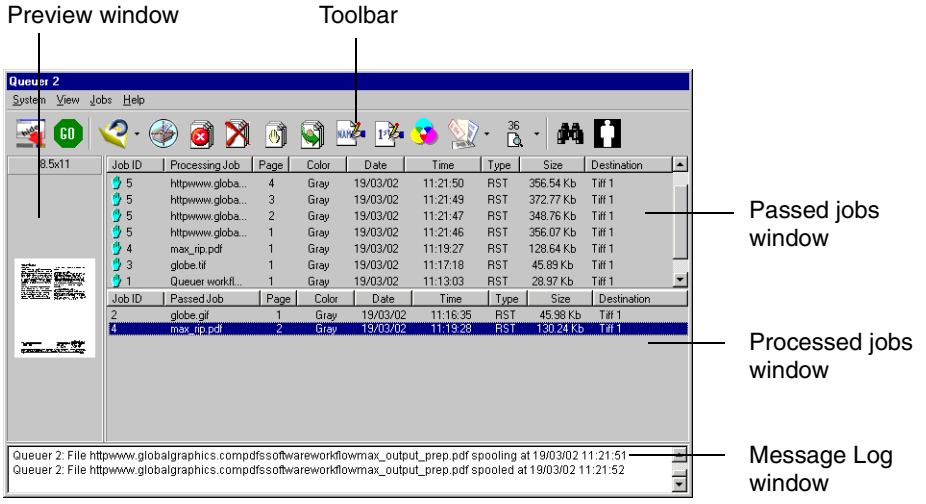

Preview window
Toolbar
Queuer 2
System View Jobs Help
GO
8.5x11
Job ID Processing Job Page Color Date Time Type Size Destination
5 httpwww.globa... 4 Gray 19/03/02 11:21:50 RST 356.54 Kb Tiff 1
5 httpwww.globa... 3 Gray 19/03/02 11:21:49 RST 372.77 Kb Tiff 1
5 httpwww.globa... 2 Gray 19/03/02 11:21:47 RST 348.76 Kb Tiff 1
5 httpwww.globa... 1 Gray 19/03/02 11:21:46 RST 356.07 Kb Tiff 1
4 max_rip.pdf 1 Gray 19/03/02 11:19:27 RST 128.64 Kb Tiff 1
3 globe.tif 1 Gray 19/03/02 11:17:18 RST 45.89 Kb Tiff 1
1 Queuer workfl... 1 Gray 19/03/02 11:13:03 RST 28.97 Kb Tiff 1
Job ID Passed Job Page Color Date Time Type Size Destination
2 globe.gif 1 Gray 19/03/02 11:16:35 RST 45.98 Kb Tiff 1
4 max_rip.pdf 2 Gray 19/03/02 11:19:28 RST 130.24 Kb Tiff 1
Queuer 2: File httpwww.globalgraphics.compdfssoftwareworkflowmax_output_prep.pdf spooling at 19/03/02 11:21:51
Queuer 2: File httpwww.globalgraphics.compdfssoftwareworkflowmax_output_prep.pdf spooled at 19/03/02 11:21:52
Passed jobs window
Processed jobs window
Message Log window

Figure 5.14 Queuer Viewer

5.2.2.5 Jobs menu

Reprocess

Reprocesses selected jobs from the Passed jobs list to the output module. The passed jobs list shows jobs which are being kept in the storage folder until they are deleted according to the delete policy setting, as explained on page 52.

Redirect selected jobs

This option allows you to select an output device so that jobs which have already passed through the module can be sent to another device. From the list, choose the device you want to use for output and click **OK**. The job will be reprocessed for the new output device.

Abort job

This option removes a job from the Process Jobs list that contains jobs which are awaiting processing or are currently being processed.

Delete

This option removes a job from the Passed Jobs list and deletes the job from the Storage folder.

Hold

This control stops a job from being sent to an output device *after* it has been released from the Queuer.

Release

Releases selected jobs from the process jobs list and passes them to the next module in the workflow. The job is then placed in the Passed jobs list from where it can be resubmitted for further processing.

Change names

Allows you to specify a new job name for a selected job in the Queuer. The new job name is used by subsequent modules in the workflow.

Change priority

Allows you to change the priority of a job so that its release order from the Queuer module is changed. MWF releases jobs according to job priority, which is automatically determined by the SmartScan module as explained on page page 33.

Composed preview selected files

Use this option to combine selected separations into a composite image and then preview in the Preview window. Use your mouse and **Ctrl** key to highlight the separations that you want to combine. You can also use this option to soft proof individual separations.

Note: This feature only combines plates which are held in the Queuer and have *already* passed through the Harlequin RIP module.

Composed job preview

Use this option to combine all plates in a job into a composite image and then preview in the Preview window. You need only select a single separation to view all the separations in a job. If you want to view separations individually, then use the **Composed preview selected files** option.

Custom preview generation

Use this option to view the selected separation at the resolution set by the Custom preview generation icon in the module toolbar, as described on page 59.

Save as

Saves a copy of the PostScript language job.

Select all

Selects all files in a job list when one of the jobs are selected.

Search

Use the search tool to find specific jobs in the Process jobs list or the Passed jobs list. You can search on any aspect of the job including name, job id, page number, date, color and size.

Search again

Repeats the last file search.

Negative preview ON/OFF

Use this option to view all preview images as negatives.

6

BarCode



The BarCode module accepts PostScript language and PDF files and adds a barcode to the file before passing the job onto a RIP.

With this module you are able to specify the barcode type and configure its size, rotation and position.

6.1 BarCode workflow

The BarCode module is typically placed between a SmartScan module and a Harlequin RIP—it accepts and produces PostScript language and PDF files.

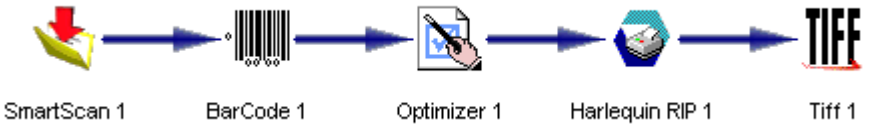


Figure 6.1 BarCode workflow

6.2 BarCode controls

Right-click the BarCode module to display the pop-up menu showing the configuration and viewing options:

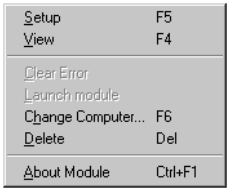


Figure 6.2 BarCode pop-up

The following controls are available for the BarCode module:

- **Setup**—see Section 6.2.1, “BarCode setup”.
- **View**—see Section 6.2.2, “BarCode Viewer”.

See “Module shortcut menus” on page 18 for details on the other general options in the pop-up.

6.2.1 BarCode setup

To configure the BarCode module select **Setup** from the pop-up menu.

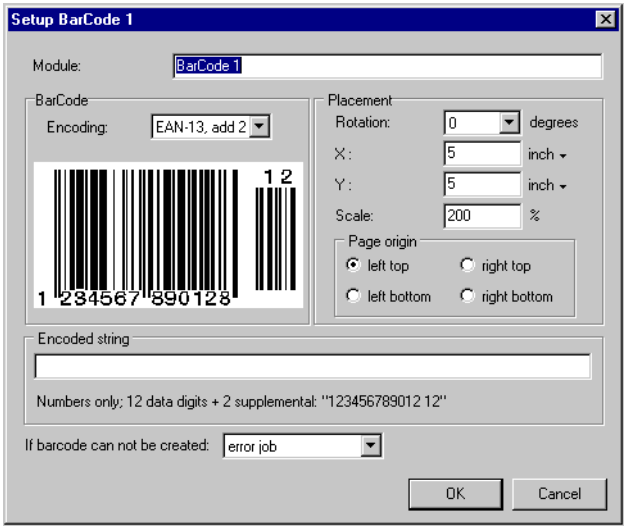


Figure 6.3 BarCode module setup dialog box

This dialog provides access to various configuration options.

Module name

Allows you to enter a new name for the module. The module name is used wherever the module is referenced: on the workspace; in log files; when linking to and from other modules.

BarCode

The options in this section define the type of barcode and the information contained within the barcode.

Encoding Selecting the drop down menu provides a number of barcode options in all the common formats.

Encoded string This text box is where you type in the specific information you want designed into the barcode. For instance you could type in the date, job or customer ID number,

printing press number, or color information. Most of the encoding languages allow only numbers whereas languages such as `code39` allow letters and symbols.

When you select an **Encoding** from the drop down menu the required format of the **Encoded string** appears below the text box. When creating a new string you must closely follow the displayed format. For example, in `code39` strings you must only use capital letters because lower case characters will cause the barcoding to fail.

You should also be aware of the length of the string. Many of the available options in the module specify how long the string must be. Note that spaces are counted as a character. If an encoding language (such as `UPC-A`) specifies a certain number of digits, you must make sure you have exactly that number of digits. An encoding any shorter or longer will not produce a barcode. `Code39` allows you to have a variable length barcode however there is a limitation on the length. Although it is not practical to make the barcode (in `code39`) too long, barcode readers may error when trying to read it.

Placement

The options in this section define the size, rotation and position of the barcode.

Rotation Select from the drop down menu the rotation value required for the barcode.

X/Y These fields define the position of the barcode with regard to the option selected in the **Page origin** field. Select the down arrows to decide the required units and then enter values into the text fields.

Scale Use this option to change the size of the barcode. This scale functionality should be used with caution as it may cause a barcode to become unreadable. Scaling may 'squeeze' or 'enlarge' both the printed bars and the spaces between them.

Page origin This option defines the point on the page from which the X/Y position options define the exact position of the barcode.

If barcode cannot be created

This option defines the actions of the module if a barcode cannot be created. The options are:

`process job` With this option selected the job will process without the barcode.

`error job` With this option the job will generate an error.

`use default string`
If this option is selected a default string will be used. Enter into the text box a string which you know works. If an error occurs with the string defined in the **Encoded string** field, this default string will be used instead.

When the Setup BarCode dialog has been completed click **OK**.

6.2.2 BarCode Viewer

Select the **View** option from the pop-up menu or double-click the BarCode module to display the BarCode module Viewer.

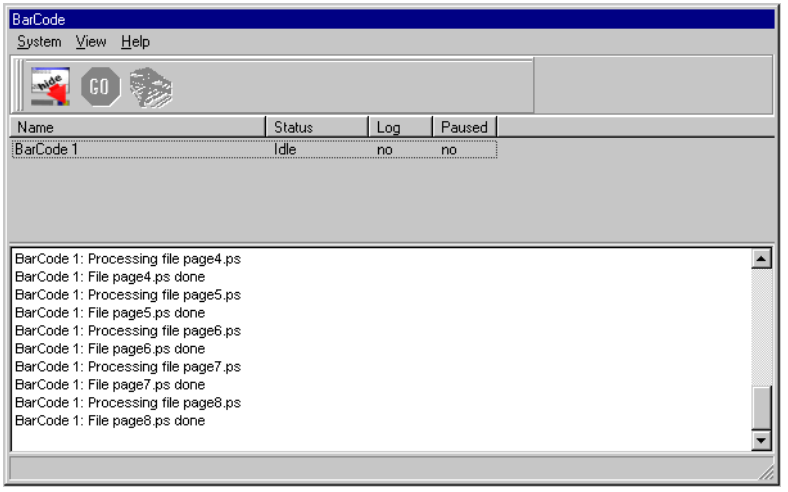


Figure 6.4 BarCode Viewer

For more information on the standard controls displayed in the Viewer see “Monitoring job processing in MWF” on page 17. As each page is run through the BarCode module it appears in the lower list.

7

Page Splitter



The Page Splitter module takes a multi-page file and splits it into one file for every page. Thus a single PostScript file with 10 pages will be converted into 10 separate PostScript files.

The Page Splitter module consumes and generates PDF, EPS and PostScript language files.

7.1 Page Splitter workflow

The Page Splitter module would generally be placed in the workflow after a Smart Scan or Queuer module. The files generated by the module can be made available to other systems via another Queuer module or sent for output via a Harlequin RIP module:



Figure 7.1 Page Splitter workflow

7.2 Page Splitter controls

Right-click the Page Splitter module to display the pop-up menu showing all the configuration and viewing options:

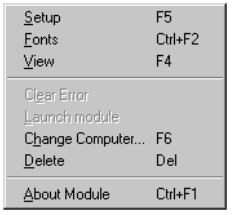


Figure 7.2 Page Splitter pop-up

The following controls are available for the Page Splitter module:

- **Setup**—see Section 7.2.1, “Page Splitter setup”.
- **Fonts**—see Section 7.2.2, “Fonts”.
- **View**—see Section 7.2.3, “Page Splitter Viewer”.

See “Module shortcut menus” on page 18 for details on the other general options in the pop-up.

7.2.1 Page Splitter setup

To configure the Page Splitter module select **Setup** from the pop-up menu to open the Setup for the Page Splitter dialog.

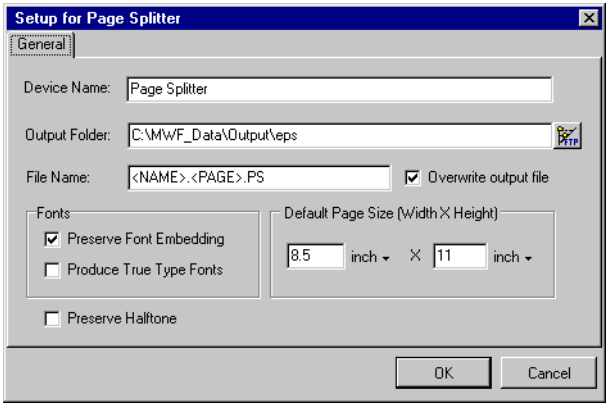


Figure 7.3 Setup Page Splitter dialog box

This dialog provides access to various configuration options which are described in this section.

7.2.1.1 General tab

The options in the General tab allow you to name the module and direct files to their output folder.

Device name

Allows you to enter a new name for the module. The module name is used wherever the module is referenced: on the workspace; in log files; when linking to and from other modules.

Output folder

This option is the designated file system folder to which the Page Splitter module directs its output. You may either click within the text box and type in the path of your choice, or select the Directory Tree/FTP button to the right of the text box and use the browser to select the location.

By default the folder chosen for the output folder is **MWF_Data/EPS**. Specifying an output folder is not necessary in most cases where the Page Splitter module is not the last module in the workflow. If the module is directly connected to a Harlequin RIP module, specifying an output folder will create a redundant set of files that will consume extra disk space.

File name

This option allows you to define the name of the individual page files created by the Page Splitter module. The default option of **<NAME>.<PAGE>.PS** will create individual pages with names constructed from the original file name appended with the page number and **.PS**. For example, a single 10 page PostScript file named **book.ps** will create 10 individual files called: **book.ps.1.PS**, **book.ps.2.PS**, **book.ps.3.PS** and so on.

The **<PAGE>** tag is very important in cases where the resulting files will be sent to an imposition module or program that extracts the page number to determine proper placement in an imposition. However, it should noted that **<PAGE>** does not extract the actual page number of the file (for example, a catalog section comprising pages 33–48 in a Quark document). It sees the page numbers as they are written in the PostScript language instructions for the file. In other words, although pages 33–48 may have been used in the Quark document, when the PostScript language is printed from Quark they will be referred to as pages 1–16. Thus, the **<PAGE>** tag will apply the numbers 1–16 sequentially to the resulting files, not the numbers 33–48.

Fonts

Preserve Font embedding

Check this option to maintain embedded fonts in the individual files created by the Page Splitter.

Produce TrueType fonts

Select this check box if you want to maintain the embedded TrueType fonts present in the PostScript file. When this box is not selected, TrueType fonts are substituted with Type1fonts. **Preserve Font embedding** must also be selected for this option to be effective.

Default page size

In the width and height fields enter the most common page size used.

If a job is processed that does not contain a page size (as do some EPS and PostScript files) the page size configured in this field is used. If however a page size is defined in the job (as is the case with most PostScript files) the values in this field are ignored.

Preserve Halftone

Select this check box to retain halftone screening information set in QuarkXPress. The halftone frequency and angles specified in the Output tab of the Print dialog in QuarkXpress are retained but the Dot shape information is not saved.

7.2.2 Fonts

To add, remove or substitute fonts select **Fonts** from the Page Splitter pop-up menu.

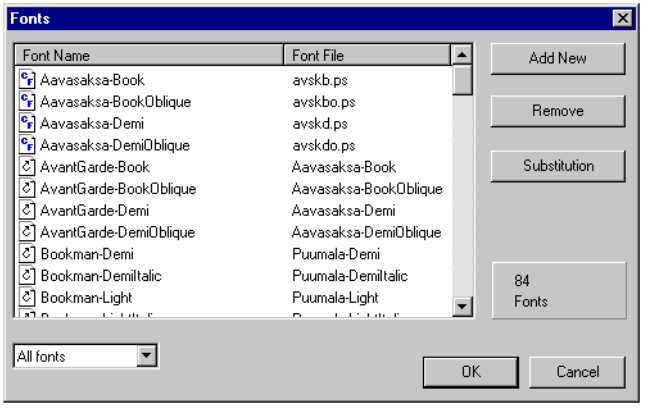


Figure 7.4 Page Splitter Fonts menu

This dialog lets you manage both Type 1 fonts (also known as ATM fonts or PFB format fonts) and TrueType fonts.

The core font set includes clones of the 35 standard PostScript compatible printer fonts, as well as stub files which refer to them. For example, Helvetica is one of the standard fonts, but the font file for Helvetica is just a stub that substitutes the clone font Helsinki instead.

Use the pull-down menu in the lower left corner of the dialog to select the type of fonts to be viewed. The `All fonts` option displays all the installed fonts.

Add New

Clicking the **Add New** button displays a browser dialog, allowing you to select the folder where Page Splitter can find the fonts you want to add.

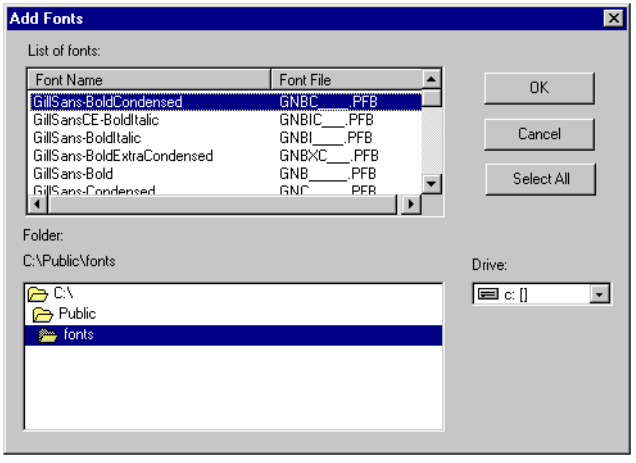


Figure 7.5 Font browser dialog

You can select as many fonts as you like.

Shift

To select a block of several fonts, select the first font in the block, and then hold down the Shift key and select the last font in the block.

Ctrl

To select several unconnected fonts, hold down the Control key while making your selection.

To select all the fonts displayed in the list click the **Select All** button.

When you have selected the required fonts to be loaded click **OK**.

Remove

To remove fonts from the system, highlight the fonts in the list and click the **Remove** button followed by accepting the 'Are you sure' prompt.

Substitution

This option allows you to substitute one font for another.

The dialog that appears when this option is selected has two areas, the upper text box labeled **Name of the substitution**, is where you enter the name of the font to be substituted; and the lower menu, labeled **Font to Substitute**, is where you select the font to be used as the substitution.

Generally, it is preferable to use the exact font that was used in the design of the document. However, there are times when this is not possible; a font may be corrupt; or the original font may not have been sent with the original file. In such cases the only solution is to substitute with a font that is very similar in design to the original specified font. The customer may ask you to do this to get the job done on time.

If substitution were not available, the Page Splitter would do one of two things: error and refuse to produce the job or substitute a default font that is not even close to the way it should look. Either result is unacceptable.

One solution is to open up all the pages in the original application program and search and replace every occurrence of the problem font. This is not ideal as it is time consuming; you may not have the original application and if you miss one or two occurrences where the font was used the processing time would be wasted.

Having the Page Splitter offer to do the substitution for you "on the fly" is the solution because all occurrences are guaranteed to be substituted.

7.2.3 Page Splitter Viewer

Select the **View** option from the pop-up menu or double-click the Page Splitter module to display the Viewer window.

The status of the individual Page Splitter modules is displayed when the Devices tab is selected. Information about individual jobs is displayed when the Jobs tab is selected. For more information on the controls displayed in the Viewer see “Monitoring job processing in MWF” on page 17.

8

Enabler



MWF's Enabler module offers a way for third-party developers to integrate their own proprietary sub-systems into the MWF system.

8.1 Enabler module workflow

Enabler accepts EPS, PDF and PostScript language files. Jobs entering the module are transferred to an output folder. From here an external application, that is, an application that is not part of MaxWorkFlow, can accept the job and process it further. Afterwards, the job is returned to MaxWorkFlow via the

input folder, where processing continues with the other modules. How a third-party external application is integrated into MaxWorkFlow, is illustrated in Figure 8.1.

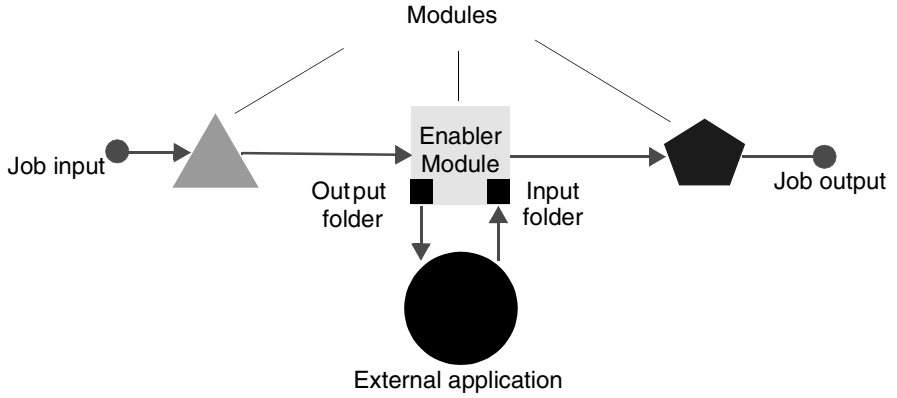


Figure 8.1 Integrating an external application into MaxWorkFlow

8.2 Enabler controls

Right-click the Enabler module to display the pop-up menu showing all the configuration and viewing options:

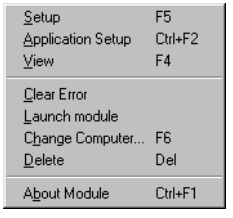


Figure 8.2 Enabler module pop-up

The following controls are available for the Enabler module:

- **Setup**—see Section 8.2.1, “Enabler setup”.
- **Application setup**—see Section 8.2.2, “Application Setup”
- **View**—see Section 8.2.3, “Enabler Viewer”.

See “Module shortcut menus” on page 18 for details on the other general options in the pop-up.

8.2.1 Enabler setup

Enabler module options are specified in the Setup Enabler Module dialog box, which is shown in Figure 8.2. To access this dialog, right-click the module and choose **Setup** from the menu, or use the shortcut key **F5**.

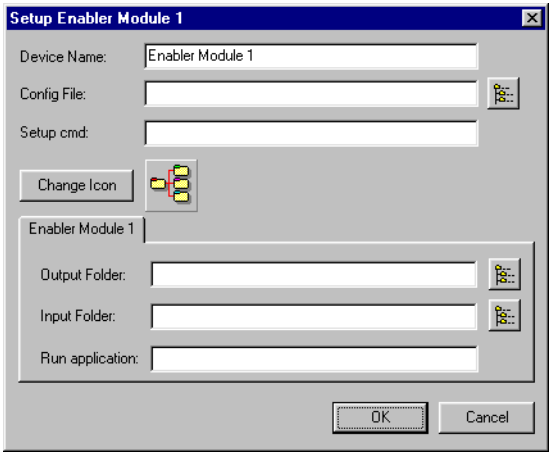


Figure 8.3 Enabler dialog box

The configuration options for Enabler are as follows:

Device Name

Allows you to enter a new name for the module. The module name is used wherever the module is referenced: on the workspace; in log files; when linking to and from other modules.

Config File

The name of an XML file that contains device information, such as printer name and directory paths. The Enabler module exports this information where it can be read by an external application and used accordingly.

An example XML file is shown below:

```
<xml>
  <MWF_FILE_SETP>
    <Device>
      <In>c:\printer\input</In>
      <Out>c:\printer\output</Out>
      <Name>Windows Printer</Name>
    </Device>
    <Device>
      <In>c:\TIFF\input</In>
      <Out>c:\TIFF\output</Out>
      <Name> TIFF</Name>
    </Device>
  </MWF_FILE_SETUP>
</xml>
```

Setup cmd

Enter the path to an application that you want to set up. This is usually the same application specified for **Run application**. To launch the application, right-click Enabler and choose **Application setup** from the pop-up menu. The full path is required

Change Icon

To change the appearance of the Enabler icon, click this button and navigate to location of your `.ico` file.

Output folder

To specify the location of an output folder, enter the path directly into the text box, or click the folder button and navigate to the folder using your mouse. Enabler uses this folder to pass jobs and other data to the external application for processing. Be sure that the external application also has access to this folder.

Input folder

Similar to the Output folder option, except this time the folder is used to retrieve jobs that have been processed externally. Again, this folder must be accessible to MaxWorkFlow and your third-party application.

Run application

Use this text box to enter the name of an external application to which jobs will be passed for processing. Enter the full path to the application, with the following parameters:

`%f` Job file name.

`%o` Path to the job file.

8.2.2 Application Setup

This option, accessible from the Enabler pop-up menu, provides a convenient way to launch an application so that it may be configured. The application is specified with **Setup cmd** in the Enabler setup dialog controls, see page 84 for details.

8.2.3 Enabler Viewer

Select the **View** option from the pop-up menu or double-click the Enabler module to display the Viewer window.

The status of the individual Enabler modules is displayed in the **Devices** tab. For more information on the controls displayed in the Viewer see “Monitoring job processing in MWF” on page 17.

9

Harlequin RIP



The Harlequin RIP has proven itself to be a fast, versatile and powerful PostScript language compatible interpreter. The latest version features Global Graphics' Eclipse Release™ technology with support for:

- PDF/X-1a:2001 and PDF/X-3:2002.
- PDF 1.4 including: transparency, JBIG2, 128 bit encryption, output intents, and referenced PDF.
- Palette color (Index color) TIFF files.

9.1 Harlequin RIP workflow

The Harlequin RIP module is likely to be at the heart of most of your digital prepress workflows. The module would usually be placed after the SmartScan or Queuer modules in the workflow, and is often followed by the TrapPro module for an in-RIP trapping solution. The RIP module accepts a range of input formats including: PostScript-language and Encapsulated PostScript (EPS) files, Portable Document Format (PDF) files, TIFF/IT-P1 files, TIFF 6.0 baseline files, and JPEG and JFIF files. The Harlequin RIP supports modern versions of these files including PostScript LanguageLevel 3, PDF version 1.4, and derived standards such as PDF/X. The RIP also has controls for special handling of older versions of these files if necessary.

The Harlequin RIP produces raster data and should direct its output to the file format modules such as TIFF and GIF or the output device modules such as Max Imagesetter, ECRM SCSI and Ultre SCSI.

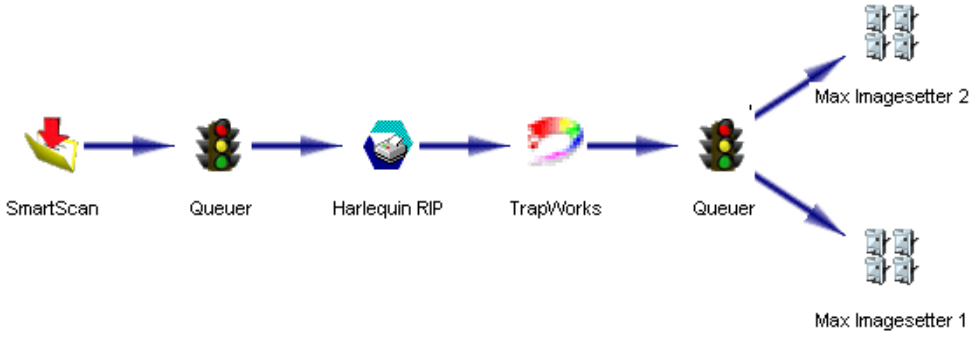


Figure 9.1 Typical Harlequin RIP workflow

9.2 Harlequin RIP controls

Right-click the Harlequin RIP module to display the pop-up menu showing all the configuration and viewing options:

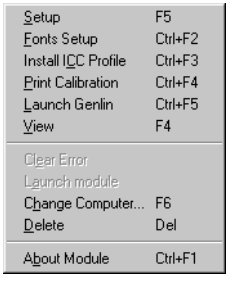


Figure 9.2 Harlequin RIP pop-up menu

The following controls are available for the Harlequin RIP module:

- **Setup**—see "Harlequin RIP setup".
- **Fonts Setup**—see "Fonts Setup" on page 100.
- **Install ICC Profile**—see "Install ICC Profile" on page 110.
- **Print Calibration**—prints a calibration target for use in Genlin, see "Creating a calibration profile" on page 110.
- **Launch Genlin**—starts Genlin, see "Using Genlin to read a target" on page 112.
- **View**—see "Harlequin RIP Viewer" on page 118.

See "Module shortcut menus" on page 18 for details on the other general options in the pop-up.

9.3 Harlequin RIP setup

To configure the Harlequin RIP module select **Setup** from the pop-up menu.

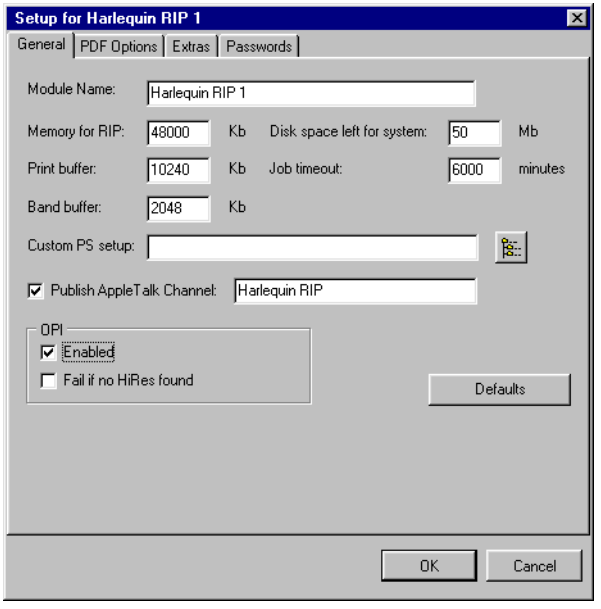


Figure 9.3 Harlequin RIP Setup dialog box

Each tab at the top of the dialog provides access to various configuration options which are described in this section.

9.3.1 General tab

The options in the General tab allow configuration of the memory settings for the Harlequin RIP.

Module name

Allows you to enter a new name for the module. The module name is used wherever the module is referenced: on the workspace; in log files; when linking to and from other modules.

Memory for RIP

This option allows you to specify the memory allocation for the Harlequin RIP. The default value is set at `10,000 Kb`, and for most cases this setting works well. However, you may want to adjust this figure in line with the amount of on-board RAM, the typical job size, any job trapping requirements, and processing involved in recombining preseparated jobs.

From the total memory allocated to it at startup, the Harlequin RIP allocates the printer and network buffers. All memory not used for these buffers is used by the RIP for processing jobs.

The final allocations used are reported in the RIP Monitor window when the RIP starts up. The memory information appears in the following form:

```
Total Memory Available: 126324Kb
Memory Left For System - Requested: 20439Kb, Actual: 20439Kb
Network Buffer - Requested: 64Kb, Actual: 64Kb
Printer Buffer - Requested: 4096Kb, Actual: 4096Kb
Band Size - Requested: 2048Kb, Actual: 2048Kb
Memory available for RIP: 101725Kb
```

If there is insufficient memory to allocate the buffers requested, the Harlequin RIP tries the following methods of automatic recovery, in the order shown:

- Reducing the network buffer to a minimum of 64 KB.
- Reducing the printer buffer to a minimum of 512 KB.
- Reducing the Minimum memory left for system to a minimum of 512 KB.

If there is still not enough memory to give the Harlequin RIP at least 4096 KB, the RIP displays a warning and quits.

The **Memory for RIP** text box is used for the amount of RAM designated to the RIP at start-up. The RIP consumes more RAM if needed while processing data.

Print buffer

The print buffer is used to store processed raster data that is ready to be sent to the printer.

The **Print buffer** (KB) text box is used to define the amount of RAM designated to the RIP for the output of bitmap image data. The print buffer is divided into regions of equal size called *Bands*, which are typically 2048 KB in size. Both Print buffer and Band size are configurable in MWF. The Print buffer defaults to 10,000 KB and *must* be at least double the size of the Band buffer.

To change the size of the print buffer, enter the number of kilobytes (KB) you require in the text box labeled **Print buffer**. If there is not enough memory for the requested print buffer, its size can be reduced automatically.

The figure you enter is the *minimum* amount of memory that the Harlequin RIP uses for buffering output.

Band buffer (KB)

This text box is used for the amount of RAM designated to the Band buffer output. This buffer accepts image data in strips from the Printer buffer for outputting to the DCOM/CORBA bus.

The value specified in the **Band buffer** text box specifies the size in kilobytes (KB) of the bands into which the Harlequin RIP divides a page for rendering, in the slow scan direction. Larger bands mean the page is divided into fewer pieces.

Large pages (either in area or bits-per-pixel) mean that many fewer scan lines can be accommodated in each band and this can slow down the system. On the other hand, too many scan lines in a band means that each band takes longer to process.

The Band buffer should be set to half or less of the Print buffer size.

Custom PostScript setup

PostScript language hooks allows PostScript language procedures to be called at various key stages of interpretation to affect the way in which the job is interpreted. For example, *Page Features*, such as those found in `\swnt\sw\Page Features`.

Publish AppleTalk Channel

Allows a virtual printer to be set up in the Macintosh Chooser, and with a program like Global Graphics' *Fireworks*, the user can install Macintosh fonts into the Harlequin RIP from the Mac.

Disk space left for system (MB)

This is the amount of disk space left to the Windows NT operating system.

The Harlequin RIP allows you to define a minimum amount of free disk space, which is good practice and allows for use by other applications.

The default value of the **Disk space left for system** option is `5 MB`. You may want to increase it to reserve disk space for the other modules running on the same machine. A reasonable value should be near the size of the largest files regularly created or copied on the relevant disk. Try using 50 MB, if this size is difficult to predict.

Job time out

This is the amount of time the Harlequin RIP waits for a job to process through the system.

The job timeout allows you to control when the Harlequin RIP stops trying to process a job. This is useful because it can protect against infinite loops in PostScript language code. If there is an infinite loop in a job, it never finishes processing. Using a timeout ensures that, after a set period of time, the RIP stops processing such jobs.

OPI

The OPI (Open Pre press Interface) option provides you with the option of using the in-built comment parsing facility in the Harlequin RIP module.

- Click the **Enabled** check box to use OPI comment parsing in the RIP. The RIP looks for the low-resolution, FPO (For Position Only) files in the incoming file. This means that the MWF system does not have to transmit files to a separate OPI server.
- Click the **Fail if no HiRes found** check box to prevent the file being output if an OPI reference is found and the corresponding high-resolution file cannot be found—you do not really want the low-resolution version of the file appearing in the job.

Defaults

Click this button to return the settings in the Harlequin RIP module to their defaults. The **Defaults** button has a limited effect, it cannot, for example, restore any fonts that the user has removed from the RIP using the Fonts setup window.

PDF Options tab

Figure 9.4 shows the dialog box that is displayed when you click **PDF Options** in the Harlequin RIP Setup dialog box. (This view shows some settings that are not at their default values.) If you need to print PDF files with different options, for example with different passwords, you can create a number of PDF page setup configurations.

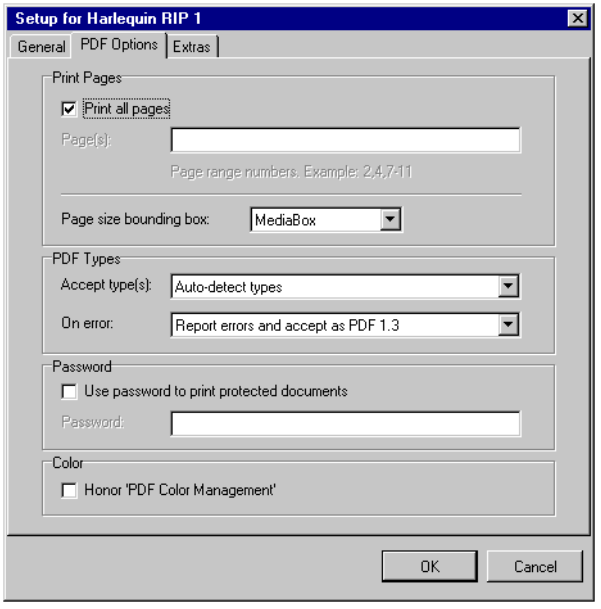


Figure 9.4 PDF Options dialog box

The options are in sections for page selection, PDF type acceptance, passwords, and color handling.

Page selection

These options allows you to select exactly which pages you want to print.

Print all pages

Leave this check box selected to print all the pages in the PDF document. If you wish to print only a subset of the pages from a PDF job, deselect this check box and enter the desired pages in the **Page(s)** text box.

Reselect this check box when you have finished printing the subset of pages. This enables the printing of all pages from other PDF jobs. (You do not need to delete the entry in the **Page(s)** text box.)

Page(s)

Enter numbers for the page or pages that you wish to print. You can enter individual page numbers or ranges, separating each number or range with a comma (`,`) character.

To enter a page range, enter the numbers of the first and last pages in the range, using a hyphen to separate them: for example, `7-16`. If you wish to print all pages from a particular page to the end of the job, enter a range starting with that particular page and ending with a number that you know to be higher than the last page in the PDF job: for example, `47-10000`.

You can combine individual page numbers and ranges: for example, `1,2,7-16,23,24`.

When printing a PDF job, the Harlequin RIP displays a message for each page that is not printed because of being unlisted in this field. This is a typical message:

```
%%[ Warning: Skipping page 1 - not in requested page range ]%%
```

Page size bounding box

PDF version 1.4 offers several options for defining a rectangular area that is the area of interest for a PDF page. A PDF file may set values for one or more of these areas, to be used as appropriate to the different ways that the PDF file can be used: viewing, office printing, imposition, commercial printing, and so on.

The RIP looks for the values of the option chosen in this list and makes a page buffer of the size set by that option. Only `MediaBox` must be present in a file, but the other areas inherit default values from `MediaBox`.

The options in this list are fully defined in the *Portable Document Format Reference Manual*, Version 1.4. The default is `MediaBox`.

`MediaBox`	The size of the media, which may be larger than the page imaged upon it.

`BleedBox` The size of the page whose edges must be reached by bleed objects, though the trimmed size of the page may be smaller. There may be printer's marks and parts of the bleed objects outside this area.

`TrimBox` The size of the page as intended for delivery to the reader, after trimming any printer's marks and excess bleed areas.

`ArtBox` The size of the rectangle to be used when placing a PDF graphic. (Typically, this is the bounding box of the graphics plus a possible allowance for captions or blank margins.)

`CropBox` Rectangle specifying the default clipping region for the page when displayed or printed. Acrobat Exchange sets this when cropping a page.

PDF type selection

These options allow you to decide on the type of PDF file you want to process.

Accept type(s)

This menu allows you to define how strictly the PDF file must conform to various standards and specifications for PDF jobs. You can use the **On error** menu to define what the RIP should do if the job does not meet the requested specification.

The options in this menu are as follows:

`Auto-detect types`

This is the default option. The RIP makes the best possible attempt to print the file according to the type labeling within the job. (If the job claims to be PDF/X-1 but does not meet that standard, then the RIP treats that as an error but may still be able to print the file.)

`Any PDF <= 1.4 as basic PDF`

Print any job with a recognized PDF version; that is, version 1.4 or less, including non-compliant jobs labeled as PDF/X-1 but not actually complying with the standard. This is the most relaxed setting.

`Only PDF/X-1a:2001`

Raise an error for any jobs that do not meet the PDF/X-1a:2001 standard. The setting in the **On error** menu determines the consequence of the error.

`Only PDF/X-3:2002 or X-1a:2001`

Raise an error for any jobs that do not meet the PDF/X-3:2002 *or* PDF/X-1a:2001 standard. The setting in the **On error** menu determines the consequence of the error.

On error

The options in this menu define the action you wish to occur if there is an error: for example, if the PDF file is an unrecognized type or if it fails to meet the condition set in the **Accept type(s)** menu. The actions are as follows.

`Report errors and accept as PDF 1.4`

Report errors and print the job as if it is PDF version 1.4. The errors reported are for the type as explicitly set in the **Accept type(s)** field or as detected when the setting is `Auto-detect types`. There is one exception; in a PDF/X-1 job, if the `OPM` (overprint mode) flag is set then its presence and value are ignored, without producing an error.

There may be problems with the printed results if the job is newer than version 1.4 or is badly constructed.

`Reject if invalid PDF type`

Report errors and reject (abort) the job.

Passwords

These options define how you use passwords.

Use password to print protected documents

Select this option when you wish to print a document that has been protected by a password, and enter that password in the text field. Enter one password only.

For maximum security, remove the password after use. This removal is optional if your other PDF jobs do not have password protection.

Note: The PDF specification allows for files to have Owner and User (reader) passwords. The Harlequin RIP checks the password that you enter against both of these passwords, and allows printing if either password produces a match.

Passwords can be any length but only the first 32 characters are significant. If you have any way to influence the choice of password used in jobs supplied to you, suggest that it uses only ASCII characters: the letters `A-z` and `A-Z`, the numerals `0-9`, and punctuation marks such as `[]{}` and `;`. For example, there may be problems in entering the password if the password uses characters that are not in the English alphabet. Avoid multiple white space characters, accented characters, and characters that require a double-byte representation.

Color handling

These options define how you handle color within PDF files.

Honor 'PDF color management'

Select this check box when you wish to treat any calibrated or device-independent color definitions in the PDF jobs as the PDF job declares them. Leave this box unchecked if you wish to treat these color definitions as device-dependent color.

By default, this option is not selected.

PDF jobs can use a variety of color spaces, including device-dependent spaces such as `DeviceCMYK`.

Typically, when using device-independent color spaces, PDF version 1.2 files use the `CalGray` and `CalRGB` color spaces and PDF version 1.3 and 1.4 files use the `ICCBased` color space but these usages are under the control of the creating applications—see the Job Options dialog box: for the **Advanced** tab in Distiller 3.0 and for the **Color** tab in Distiller 4.0.

When **Honor 'PDF color management'** is not selected, the Harlequin RIP converts `CalGray` to `DeviceGray`, and `CalRGB` to `DeviceRGB`; the RIP converts `ICCBased` color spaces to `DeviceGray`, `DeviceRGB`, or `DeviceCMYK` according to the alternative color spaces.

When **Honor 'PDF color management'** is selected, the RIP treats `CalGray`, `CalRGB`, and `ICCBased` color spaces as device-independent color, processing them through the installed CRD according to the standard PostScript language color model. The only exception is when an `ICCBased` color space contains an ICC device link profile, in which case the device link is used.

Honor 'PDF color management' has no effect on the `Lab` color space.

9.3.2 Extras tab

The Extras tab provides access to the ICC Color profile support password.

Abort job if any fonts are missing

Select this option to ensure that a job is aborted if any font it uses is not available. If you leave this option unselected, the RIP attempts to use a suitable replacement for any missing font.

By default, this option is not selected.

Print EPS files (add showpage if necessary)

With this option checked the Harlequin RIP has the capability of processing native EPS files. If the EPS files does not contain a `showpage` command one will be added. An example of EPS file that usually do not contain a showpage command are many *Freehand* files.

Restart RIP every *nn* hours

Enter the numbers of hours for the RIP to process jobs before it restarts. We recommend a setting of `12` hours when there is a constant flow of processing. In **Start time**, specify the time that you want the restart to commence and it will occur every *nn* hours after this.

9.3.3 Passwords tab

ICC color profiles support password

Enter the ICC color profiles support password in this text box.

For more information on ICC color profiles see “Install ICC Profile” on page 110.

On completion

Once you have entered the correct setup information for the RIP, click **OK**. If you have entered something in error, you may select **Cancel**, or go back and highlight the erroneous information and replace it with correct information.

9.4 Fonts Setup

To setup the fonts in the Harlequin RIP module select **Fonts Setup** from the pop-up menu.

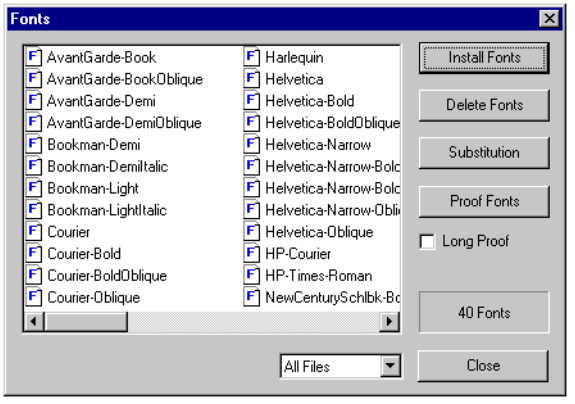


Figure 9.5 Fonts dialog box

Whenever the Harlequin RIP processes a job that uses fonts, they must be available in memory. Fonts are loaded into the RIP from the disk automatically whenever they are required. However, the fonts must have been installed first, or they must be embedded in the job that uses them. Installation is a once-only process where the RIP configures the font for its use and puts it in the appropriate place.

A suite of facilities is provided that let you manage fonts easily and efficiently. This suite includes commands that can:

- Install fonts in the Harlequin RIP.
- Tell you which fonts are currently installed.
- Produce a proof of any font currently installed.
- Remove fonts from the Harlequin RIP.

9.4.1 Supplied fonts

The Harlequin RIP comes with the 35 standard fonts found in most versions of the Apple LaserWriter and many other PostScript language printers. The Harlequin RIP font folder also includes several special-purpose fonts:

- The `Harlequin` font is used only for the Harlequin logo.
- The `HP-Times-Roman` and `HP-Courier` fonts are used for PCL emulation. PCL is the Printer Control Language used in Hewlett-Packard laser printers.
- The `NotDefFont` font is used by composite fonts.
- The `Stick` font is used for HPGL emulation. HPGL is a plotter language used by some Hewlett-Packard laser printers. Harlequin supports HPGL2 with this font.

9.4.2 Types of font

There are several different types of fonts that can be installed and used with the Harlequin RIP, as described in "Installing fonts" on page 103.

- Type 1 fonts—these are the most commonly used fonts. Type 1 fonts can contain *hints*—metrics that vary with the size of the characters. Hinted fonts can improve the appearance of text rendered at low resolution or at small sizes on higher resolution devices: for example, hints can affect 11 point text at resolutions up to 2000 dpi.

  Note: The font downloaders supplied with many Type 1 fonts actually install Type 1 fonts as Type 4 fonts.

- Type 3 fonts.
- Character identifier (CID) composite fonts, together with associated character map (CMAP) files—used to produce CID-keyed fonts, which exist only in the memory of the Harlequin RIP (or other RIPs). CID-keyed fonts fulfil the same purposes as Type 0 fonts but can be defined more flexibly (using CID fonts and CMAP files) and so form the preferred format for new fonts.
- Single-byte PC format TrueType fonts or OpenType fonts with TT outlines.

Note: The Harlequin RIP supports the use of a variety of other fonts, for example, when they are embedded in PostScript language or PDF jobs. The embedded fonts can include Compact Font Format (CFF/Type 2), Type 42, and Type 32 fonts.

9.4.3 The DLD1 format

The Harlequin RIP converts Type 1 fonts (and Type 1 fonts contained within composite fonts) into Harlequin's own DLD1 font format.

The DLD1 format stores font data far more efficiently than do standard storage formats. Access to font data, and operations upon fonts, are made much faster, while the amount of PostScript language virtual memory consumed by the font is reduced dramatically.

The benefits of using the DLD1 format include: a DLD1 format font occupies less disk space; and this format can require under 10% of the memory space of other formats. This table shows some typical figures for the disk and memory requirements of a font in DLD1 format, and for the corresponding font in Type 1 and Type 4 formats.

Font type	Disk space (KB)	Memory (KB)
DLD1	45	4
Type 1	100	50
Type 4	50	30

Table 9.1 Disk and memory requirements for font types

Note: It is difficult to give corresponding estimates for Type 3 fonts because they are inherently so flexible, but they are not particularly efficient.

9.4.4 Installing fonts

If a job requires a particular font, the font must already be installed in the Harlequin RIP before the job is processed, unless the job itself contains the font definition. If the font is not found, the RIP instead prints the text in Courier or issues an error message; depending on the setting for **Abort the job if any fonts are missing** in the Page Setup Options dialog box.

Depending on the font type, you can install a font into the RIP by using the **Install Fonts** command, or by downloading the font to the RIP. In addition, Mac users can download Mac fonts into the Harlequin RIP by using Harlequin's *Fireworks* font downloading utility. To use this option you will need to select **Publish AppleTalk Channel** from the General tab, which publishes a virtual printer on the AppleTalk network, and make the printer available to the Mac.

Table 9.2 summarizes how to install the various font types. An entry in the Other column indicates that the RIP supports the use of the fonts when they are embedded in PostScript language or PDF jobs. (A following PS or PDF indicates that embedding is possible only in that format.)

Font type	Install Fonts	Download to RIP	Other
Type 1 fonts (excluding Multiple Master fonts)	✓		✓
Type 3 fonts	✓		✓
Multiple Master fonts		✓	✓
TrueType fonts	✓	✓	✓ PDF
Type 0 (composite) fonts		✓	
Character identifier (CID) fonts	✓	✓	✓
Character map (CMAP) files	✓	✓	✓
Compact Font Format (CFF/Type 2) fonts	✓		✓ PDF
Type 42 fonts			✓ PS
Type 32 fonts			✓ PS

Table 9.2 Installing fonts in the Harlequin RIP

Install Fonts

The **Install Fonts** command and downloading fonts to the RIP are described in the next two sections.

See "Removing Fonts" on page 109 for details about deleting the fonts you have installed.

When you click the **Install Fonts** button in the **Fonts** dialog box, the RIP displays the Install Fonts dialog box shown in Figure 9.6.

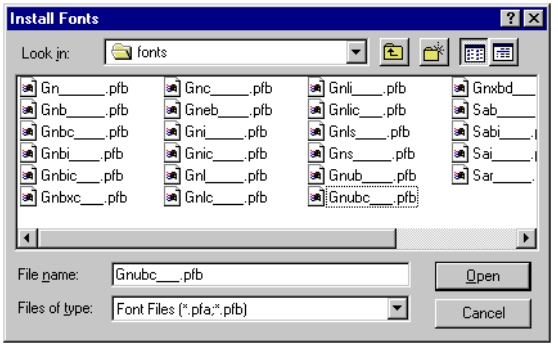


Figure 9.6 Install Fonts dialog box

To install a single font, do the following:

1. Select a font in the list box.
2. Click **Open**.

Note: Normally, only LaserWriter font format files and PC format files with a `.pfb` or `.pfa` extension are visible in the upper list box. If your fonts are not in this format, select **All files** from the **Files of type** drop-down list.

Use the **Look in** menu list to use other directories or drives.

You can also select several fonts and install them together.

Shift

To select a block of several files, select the first file in the block, and then hold down the Shift key and select the last file in the block.

Ctrl

To select several unconnected files, hold down the Control key while making your selection.

A successfully installed font produces the message:

`Installed font '`*font_name*`' in Type 42 format`

The **Install Fonts** dialog box allows you to install into the RIP, Type 1 (excluding multiple master fonts), Type 3 and single-byte PC format TrueType fonts or OpenType fonts with TT outlines.

There is no support for double-byte fonts, Macintosh format (resource fork) fonts, or OpenType fonts with CFF outlines.

If you try to install a file that does not contain a font, or that contains a font of another type, the RIP displays a message in the RIP Monitor. This does not harm the RIP or the file in any way—the RIP just refuses to install it.

All fonts installed are placed in the `MAXWorkFlow\swnt\sw\fonts` folder. If a font is of Type 1, it is converted into DLD1 format before being added to the folder. This can then be loaded into the RIP whenever necessary.

Installation is performed on a copy of the font, so your original font file remains intact.

Microsoft Windows handles the `Windows\Fonts` folder and its contents specially. If you wish to install a font found in this folder, first make a copy of the font in another place, and then install that copy into the RIP. You can then discard the copy that you made.

Downloading fonts to the RIP

This section describes how to download fonts to the Harlequin RIP.

- Multiple Master fonts
  Multiple Master fonts may be downloaded over AppleTalk from a Macintosh using the downloader supplied with them.

FireWorks, the Harlequin font downloader, can considerably ease the task of installing some composite fonts. If you would like more information about FireWorks, please contact your supplier.

- TrueType fonts
  Some downloaders are available for installing TrueType fonts on RIP disks. Such downloaders work with the Harlequin RIP.
- CID fonts
  If your CID font is supplied with a downloader, install the font and any relevant CMAP file over AppleTalk using the supplied downloader. If no downloader is supplied, use the **Install Fonts** command.

All installed fonts are placed in the `MAXWorkFlow\swnt\sw\fonts` folder, except for CID fonts and CMAP files, which are placed in the `CIDFont` and `CMAP` folders respectively.

9.4.5 Proofing Fonts

The Harlequin RIP allows you to produce a proof of any installed font automatically.

Note: The RIP cannot proof CID fonts. If you request such a proof, the RIP uses a substitute font, which is Courier unless your supplier has configured a different substitute.

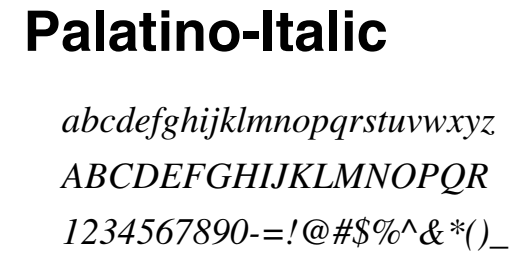


Figure 9.7 An example of font proofing

Proof Fonts

You can proof fonts, to any of the available output devices, by selecting the fonts and then clicking **Proof Fonts** in the Fonts dialog box. At this point a list of the available output devices appears in a pop-up menu from which you should select the required device.

The RIP produces the proof by fitting as many fonts as possible on a page. Figure 9.7 shows an example of a short-format proof for one font.

You can select as many fonts as you like.

Shift

To select a block of several fonts, select the first font in the block, and then hold down the Shift key and select the last font in the block.

Ctrl

To select several unconnected fonts, hold down the Control key while making your selection.

The RIP constructs a PostScript language job and then runs it. If other jobs are pending, the proof takes its place in the queue.

By default, proofs only show a sample of the full character set in a font. If you want a proof of the complete set of characters, select the **Long Proof** check box.

9.4.6 Removing Fonts

You can remove most font types by clicking the **Delete Fonts** button in the Fonts dialog box. The two exceptions to this are composite and CID fonts.

- Composite fonts
  We recommend that you remove a composite (Type 0) font using the font downloader supplied with it. This ensures that the leaf fonts are removed. In many cases this is also the only way to recover a font license if the license restricts you to a fixed number of installs.
- CID fonts
  If your CID font is supplied with a downloader, remove the font using that downloader. Otherwise, delete the CID font from the `CIDFont` folder in the `SW` folder.

  Note: If there is a CID font and, for example, a Type 1 font with the same name, the name is listed twice. If you delete such a font, the RIP deletes the Type 1 font first; and then the CID font, if you choose to delete again.

Delete Fonts

To remove fonts from the Harlequin RIP, highlight the fonts to be removed and click the **Delete Fonts** button. The RIP immediately removes the fonts that are selected in the window.

Warning: Do not delete *Courier* as this font is essential to the correct operation of the Harlequin RIP module. (If removed, the RIP module will not be able to load and will appear disabled on the workspace.)

If you remove a font, and then need to process a job that uses it, you first have to reinstall it. There is no confirmation dialog box. Before clicking **Delete Fonts** be sure that you have the original file from which you can reinstall the font.

9.4.7 Font Substitution

This option allows you to substitute one font for another.

The dialog that appears when this option is selected has two areas, the upper text box labeled **Name of the substitution**, is where you key in the name of the font to be substituted; and the lower menu, labeled **Font to Substitute**, is where you select the font to be used as the substitution.

Generally, it is preferable to use the exact font that was used in the design of the document. However, there are times when this is not possible; a font may be corrupt; or the original font may not have been sent with the original file. In such cases the only solution is to substitute with a font that is very similar in design to the original specified font. The customer may ask you to do this to get the job done on time.

If substitution were not available, the RIP module would do one of two things: error and refuse to produce the job or substitute a default font that is not even close to the way it should look. Either result is unacceptable.

One solution is to open up all the pages in the original application program and search and replace every occurrence of the problem font. This is not ideal as it is time consuming; you may not have the original application and if you miss one or two occurrences where the font was used the processing time would be wasted.

Having the RIP module offer to do the substitution for you "on the fly" is the solution because all occurrences are guaranteed to be substituted.

9.5 Install ICC Profile

To select an ICC (International Color Consortium) profile for installation into the Harlequin RIP module, choose **Install ICC profile** from the pop-up menu.

This command supports the use of industry-standard color profile files which enable portable definitions of the characteristics of printers, printing processes, presses, scanners, and other equipment.

9.6 Creating a calibration profile

The Harlequin RIP module allows you to create a calibration target for your output device. Using Genlin—a small utility built into the RIP module—you can read a calibration target and produce a CMY gray-balanced target for your output device. The following sub-sections describe the procedure for creating a calibration profile.

9.6.1 Printing a calibration target

To print a calibration target, set up a workflow containing the Harlequin RIP module and your target output device, as shown in Figure 9.8.



Figure 9.8 Example workflow

Start the workflow and right-click the RIP module and choose **Print Calibration** from the pop-up menu. The Print Calibration dialog box opens, as shown in Figure 9.9.

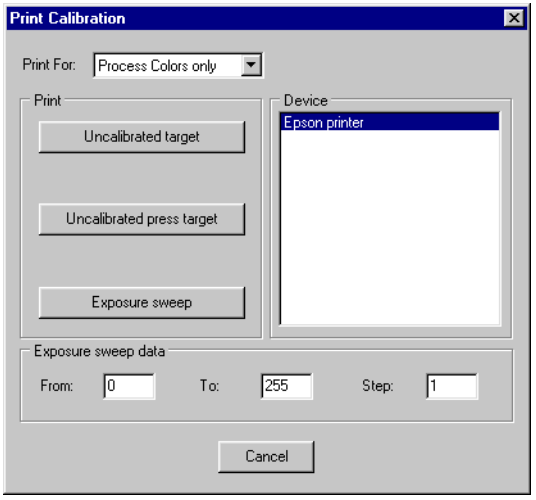


Figure 9.9 Print Calibration dialog

The Print Calibration dialog box contains all the options required for printing your calibration target, including:

Device list

The Device window lists all the output devices connected to the RIP module. From the list choose the device that you are creating the profile for.

Print for

From the menu select the appropriate color process that you will be using on the output device. Choose from `Process Colors only`, `Spot Colors only`, `Process & Spot Colors`, or `Monochrome only`.

The `Monochrome only` option supports calibration of a monochrome device, such as an imagesetter. Select this to print a single calibration strip for a page setup that normally generates separations.

Print...Uncalibrated target

Click this button to create a target for a device that is *not* a press, for example an inkjet proofer.

Print...Uncalibrated press target

Click this button to create a target that will be output on a press.

Print...Exposure sweep

Click this button to create a series of targets using the values specified in the Exposure sweep data boxes. The target creates test strips at each exposure in the specified range. For example, values of `From=100`, `To=120`, and `Step=5` produces a sweep with exposures of 100, 105, 110, 115, and 120.

9.6.2 Using Genlin to read a target

The Harlequin RIP module is supplied with the Genlin calibration utility. Genlin provides an easy way to create a linearization calibration profile for your output device by allowing you to read from a suitable densitometer, connected directly to the MWF machine. Before you begin using the densitometer, especially after prolonged storage, check the unit is calibrated correctly by following the manufacture's instructions.

Launch Genlin by right-clicking the Harlequin RIP module and choosing **Launch Genlin** from the pop-up menu. The Genlin program window opens, as shown in Figure 9.11, allowing you to create and configure a calibration profile.



Figure 9.10 Genlin program window

9.6.3 Configuring GenLin

Before you can create a profile you must configure Genlin. From the File menu choose **Configure** to open the Configuration dialog box, shown in Figure 9.11.

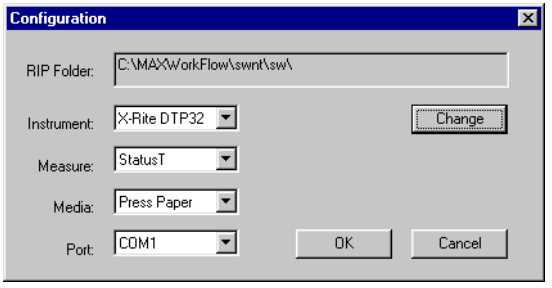


Figure 9.11 Genlin Configuration dialog

The dialog box contains all the options for configuring Genlin.

RIP Folder Choose the folder where the Harlequin RIP files are stored, the default location is `C:\MaxWorkFlow\swnt\sw`. Only one Genlin profile can be kept in the RIP folder at any one time. If you change output devices be sure to re-run Genlin and create a new profile for the output device.

Instrument Allows you to choose the densitometer model that you are using.

Measure Allows you to choose the measurement type supported by your instrument.

Media Allows you to select the paper or other media type that will be used by the output device. For example, choose `Press Paper` when using a proofing printer.

Port Allows you to choose the port that your densitometer is connected to. Refer to your computer's documentation for help in identifying the port.

9.6.4 Reading a calibration target

In genlin choose **Read Target** from the File menu. The Choose Reference Number window opens allowing you to select the target reference that you are using (for your information, the reference number is printed on the target itself). After choosing the target click **OK** to open the Read Target dialog box, as shown in Figure 9.12.

.

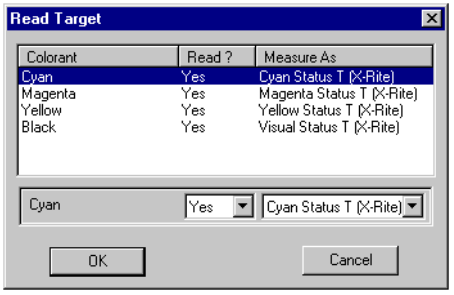


Figure 9.12 Read Target dialog box

The Read Target dialog box allows you to choose the colorants that you want to measure in the target. Select a colorant and use the menus to change the options for **Read** and **Measure as**. Click **OK** to read the target and produce the calibration profile. After producing the profile you may import it into your output device module by choosing **Import** in the Linearization tab of the output device's setup window.

9.6.5 Troubleshooting Genlin

Below is a list of possible error messages and symptoms that you may see when using Genlin, together with suggestions for resolving them.

Error messages

All error messages are preceded by the details of the measuring instrument. For example, you might see this full message when there is a problem with an X-Rite 938 instrument:

```
X-Rite 938 Error: No responding device attached to selected
serial line
```

`Error: Returned data not recognized`

There is a mismatch between the **Instrument** setting in the Configuration dialog box and the measuring instrument that you are using. Check that you are using the correct Instrument setting for your instrument.

`Error: Unknown response (error codes) (expected 'X-RITE X')`

There is a mismatch between the **Instrument** setting in the Configuration dialog box and the measuring instrument that you are using. X is replaced by the details of the measuring instrument that Genlin tried to connect to. Check that you are using the correct Instrument setting for your instrument.

`Error: Open (interface details) error 0`

There is a mismatch between the **Port** setting in the Configuration dialog box and the port interface to which your measuring instrument is connected. Try changing the **Port** setting or connecting your measuring instrument to the specified interface port.

`Error: No responding device attached to selected serial line`

This message may appear if the measuring instrument does not have any power supply. Check the power supply to the measuring instrument and ensure that it is switched on. If the problem persists there may be a fault with the power adapter or cabling.

Error: Failed to open serial line. Restart your Mac

This message may appear if you attempt to read a target after having communication problems. Restart your computer and ensure that you have the correct Port setting in the Configuration dialog box and that your instrument is powered on.

Error: Unknown

This message may appear if you have used the **File > Abort Target** menu option. This message may also appear if the RIP is unable to recognize the error generated by your measuring instrument. Check any display panel on a manual instrument for more details.

In all cases, you will be asked whether you wish to re-try measuring the target. If the error persists, consider recalibrating the measuring instrument or following advice in the "Symptoms" section.

Symptoms

Failure to communicate with the measuring instrument

This may be due to a mismatch between configuration settings and the actual instrument or interface port used. A break in cabling, or a failure in software between the computer and the measuring instrument may also be the cause of a communication failure. Check the connections and settings in the Configuration dialog box. If these appear to be correct, try switching off or disconnecting the measuring instrument for 30 seconds and then reconnecting it.

Alternatively, Genlin may not be able to communicate with the measuring instrument due to the re-configuration of the interface port by another application. If you think this is the case, close the application that you suspect is causing the conflict. If necessary, shut down and restart your computer.

Failure to read the correct data from the target

A problem in this area is most likely to be a mismatch between the Target file selected in Genlin and the type of target you are physically measuring. First make sure that the number you select in the target list after clicking **File > Read Target** matches the reference number printed on the target itself.

If recalibrating, you may have printed the target on the wrong paper type. Otherwise, you may have read the wrong patches when using a manual instrument, or incorrectly aligned the target when using a strip-reader. Finally, the target may be incorrectly printed or the measuring instrument may need recalibration.

Failure to transfer correct data to the RIP

Ensure that the **RIP Folder** specified in the Configuration dialog box is the path to the `SW` folder of the RIP installation into which you are importing data.

If the **RIP Folder** is correct, this problem may be due to a problem with the content of the **`caldata`** folder where target and import data is stored. This is very unlikely event but if it happens, delete the `caldata` folder, which is a subfolder of the Harlequin RIP **`SW`** folder and print the target again.

Note: After deleting the caldata folder you cannot use Genlin to read targets created before you deleted the folder—you must reprint the targets.

The reference number printed on the target does not appear in the list when you click **File > Read Target**

This can happen if the target was printed using a different Harlequin RIP installation. Ensure that the RIP Folder setting in the Configuration dialog box is the correct path to the **`SW`** folder of the RIP installation used to print the target.

This can also happen because the **`caldata`** folder was deleted between printing the file and trying to read it with Genlin—reprint the target and measure the new print

9.7 Harlequin RIP Viewer

Select the **View** option from the pop-up menu or double-click the Harlequin RIP module to display the Viewer window.

The status of the RIP module is displayed along with information about the RIP module itself. For more information on the controls displayed in the Viewer see “Monitoring job processing in MWF” on page 17.

To stop an individual RIP processing jobs, select the RIP to be stopped in the Viewer followed by selecting the **GO/STOP** button.

10

OPI



The OPI (Open Prepress Interface) module takes a high-resolution image and produces an equivalent low-resolution image. The low-resolution image can then be used for page setups, so alleviating the need to deal with memory-hungry image files, and at the same time lightening network traffic.

When the original high-resolution image file is required, such as at the RIP stage or in PDF creation, the high-resolution file replaces the low-resolution preview file and the page is output with the correct image in place.

10.1 OPI workflow

The OPI module can accept raster images and PostScript language files directly from a SmartScan module. However, in practice, it is more usual to first pass jobs through a PS/PDF Optimizer module so that preview images are available when using OPI files in your on-screen page makeup applications.

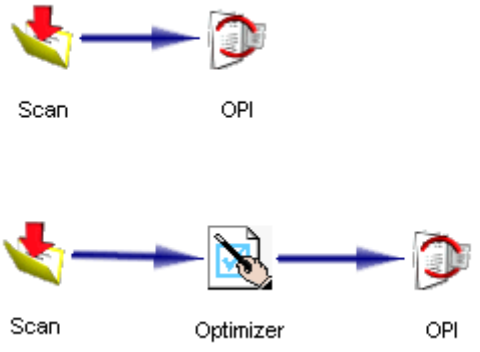


Figure 10.1 OPI workflows

10.2 OPI controls

Right click the OPI module on the workspace to display the module pop-up menu where the module dialog screens can be accessed.

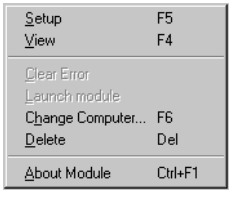


Figure 10.2 OPI pop-up menu

The following controls are available for the OPI module:

- **Setup**—choose this option to enter configuration options for the module. See "OPI Setup" on page 121 for a description of all the options available.
- **View**—choose this option to open a module view window, see "OPI Viewer" on page 127 for more information.

See "Module shortcut menus" on page 18 for details on the other general options in the pop-up.

10.2.1 OPI Setup

To configure the OPI module choose **Setup** from the module pop-up menu or select the OPI module and press **F5**. The OPI Setup dialog box appears, as shown in Figure 10.3. The configuration options are described in the following subsections.

10.2.1.1 General tab

The options in the General tab allow you to name the module and direct high and low-resolution images to their respective output folders.

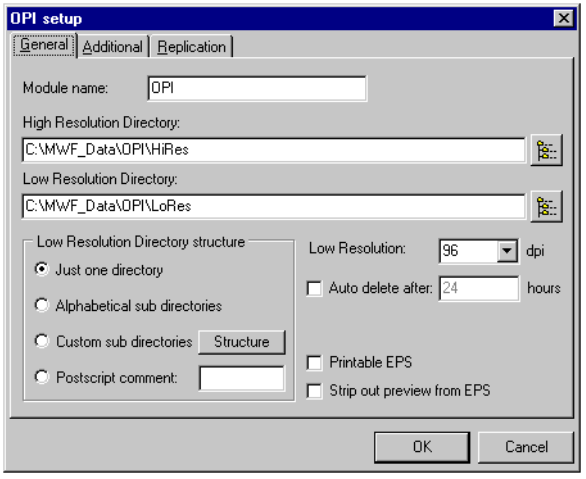


Figure 10.3 General tab

Module name

Allows you to enter a new name for the module. The module name is used wherever the module is referenced: on the workspace; in log files; when linking to and from other modules.

High resolution directory

Enter the directory location for storage of the high-resolution images. You can either enter the path directly or navigate using the navigation button. If the location does not exist the module will create a folder for you.

Low resolution directory

Enter the directory location for storage of the low-resolution images. You can either enter the path directly or navigate using the navigation button. If the location does not exist the module will create a folder for you.

Low resolution directory structure

Choose how the directory structure will be organized for low-resolution images. The following choices are available:

Just one directory

Images are stored within the high-resolution directory and low-resolution directory (no subdirectories).

Alphabetical sub directories

A subdirectory will be created based on the first letter of the image file name.

Custom subdirectories

Selecting this option opens the Structure dialog box, as shown in Figure 10.4, which you can use to generate folder names for your images based on the job name. For example, you may want to store all files of type `.bmp` in a folder called *Bitmap Images.* To do this, enter `*.bmp` in the **File mask** text box and `Bitmap Images` in the **Sub directory** text box then

click **Add**. When the OPI module receives a file of type `.bmp` it will automatically create a new folder called Bitmap Images and place a low-resolution image file there.

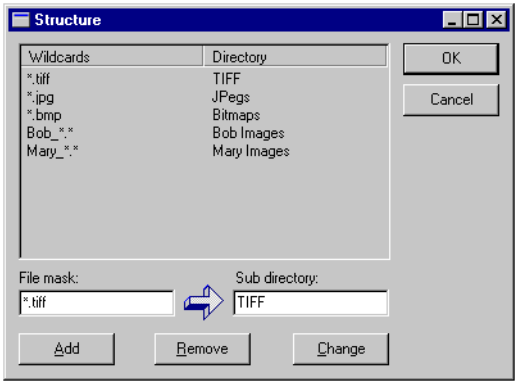


Figure 10.4 OPI Structure dialog box

PostScript comment

Use PostScript language comments within the image file to create the directory structure. These comments are added to the file in the SmartScan module Additional tab in the **Custom PS Comments** text box, see "Additional" on page 31.

Low resolution *nn* dpi

Sets the resolution to which images will be converted.

Auto delete after *nn* hours

Select the check box and then set a period after which the low-resolution image will be deleted. By default, this option is not enabled. You can also set a backup directory to store images, see "Additional tab" on page 124.

Printable EPS

When this check box is selected a low resolution image file is generated that can be used for printing proofs to a printer. For example, a page layout can be sent to a Windows printer and low resolution images will show on the page—without this option selected the page would merely show gray boxes where the image should be.

Strip out preview from EPS

This options removes the low resolution screen image from the EPS file.

10.2.1.2 Additional tab

The controls in the Additional tab allow you to share the OPI folder with other users on the network system and to specify a backup folder for your OPI images.

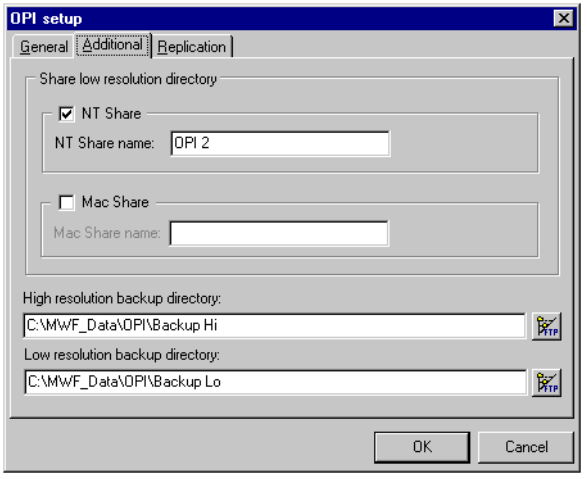


Figure 10.5 Additional tab

NT Share, NT Share name

Select the check box and enter a name in **NT Share name** to publish the OPI low resolution images folder on your NT network. Other network users can then access the OPI folder and use the images in their page layouts.

Mac Share, Mac Share name

Select the check box and enter a name in **Mac Share name** to publish the OPI low resolution images folder on your Apple network. Other network users can then access the OPI folder and use the images in their page layouts.

High resolution backup directory

Enter a directory location to store backup copies of your high-resolution images. You may want to create backups to safeguard the original images in case they become corrupted or deleted.

Low resolution backup directory

Enter a folder location to store backup copies of your low resolution images.This option can also prove useful in working with the Imposition module. The directory can be pointed to for use in imposing low resolution pages into the imposition template. This creates much faster throughput as each module (SmartScan, Queuer and so on) does not have to digest and pass on the high resolution data. The high resolution swap out occurs at the RIP module.

10.2.1.3 Replication tab

The Replication tab provides controls for replicating OPI images to other OPI modules on the workspace.

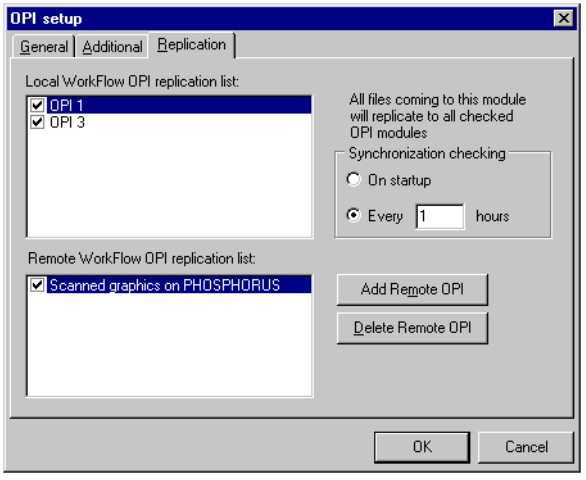


Figure 10.6 OPI setup dialog box with Replication tab selected

Local workflow replication list

Select the local OPI modules to replicate with.

Remote workflow OPI replication list

This option is similar to the **Local workflow replication list** option (described above) but here OPI low resolution and high resolution images are distributed across a network. The advantage of this is that network traffic is tremendously scaled back as the high resolution images reside locally on each machine. MWF does not have to go out on the network to another server to find the images. If several machines are trying to "talk" across the same network to a central server at the same time, information transmission slows down considerably and can even cause system crashes.

- To add a remote OPI replication folder, click the **Add Remote OPI** button and use the dialog box to navigate to the OPI folder.
- To remove a remote OPI folder, select the OPI folder from the list and click the **Delete Remote OPI** button.

Synchronization checking

This setting determines when OPI replication occurs. During synchronization the OPI module checks for changes between the two OPI folders and will replicate changes if there is a need, that is, when folder contents have changed. There are two options available:

On startup Synchronizes when the OPI module is started.

Every *nn* **hours** Synchronizes every *nn* hours.

10.2.2 OPI Viewer

The **View** option in the OPI module pop-up menu opens the OPI window showing the list of jobs which have been consumed by the module, as well as a log monitor window in which you can view progress and error messages.

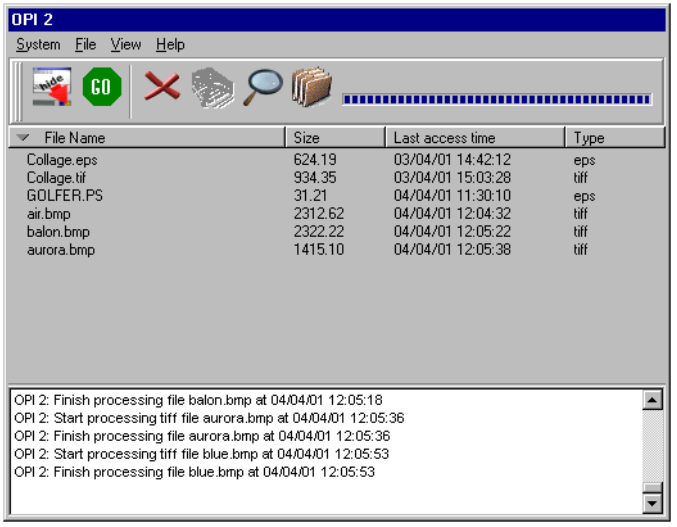

OPI 2
System File View Help
GO
File Name Size Last access time Type
Collage.eps 624.19 03/04/01 14:42:12 eps
Collage.tif 934.35 03/04/01 15:03:28 tiff
GOLFER.PS 31.21 04/04/01 11:30:10 eps
air.bmp 2312.62 04/04/01 12:04:32 tiff
balon.bmp 2322.22 04/04/01 12:05:22 tiff
aurora.bmp 1415.10 04/04/01 12:05:38 tiff
OPI 2: Finish processing file balon.bmp at 04/04/01 12:05:18
OPI 2: Start processing tiff file aurora.bmp at 04/04/01 12:05:36
OPI 2: Finish processing file aurora.bmp at 04/04/01 12:05:36
OPI 2: Start processing tiff file blue.bmp at 04/04/01 12:05:53
OPI 2: Finish processing file blue.bmp at 04/04/01 12:05:53

Figure 10.7 OPI Viewer

File name

This column lists jobs which have been processed by the OPI module.

Size

This column lists the low-resolution image file size, measured in bytes.

Last access time

This column lists the date and time that a low-resolution image file was last accessed in the OPI low-resolution folder.

Type

This column lists the file type of the low-resolution image.

10.2.2.1 OPI window controls

Many of the controls in the OPI Viewer window are described in “Monitoring job processing in MWF” on page 17. Those which are not already covered are described below:



Delete selected jobs
This button will remove selected files from the low-resolution folder. You will be prompted to confirm the action before the file is deleted.



Preview
Select a file from the job list and click this button to open a preview window with the image displayed.



Force replication
This button will force the selected job to be replicated to other OPI folders.

11

PreCheck



The PreCheck module allows you to check the elements of a particular file to ensure that it will be correctly processed by the Harlequin RIP module. If an error occurs during the pre-flight check, a log file is generated, and the file is sent to an Invalid jobs folder for correction. This module can check the format of images and convert them to CMYK on the fly. It also checks required fonts against the available fonts list, and detects fonts that are not correctly embedded.

11.1 PreCheck workflow

The PreCheck module accepts PostScript language files, Encapsulated PostScript and PDF files from the SmartScan module. If files pass the pre-flight check, they are passed on to the Harlequin RIP module for further processing. If the files fail the pre-flight check, they are sent to a specified Invalid jobs folder. The figure below illustrates such a workflow:

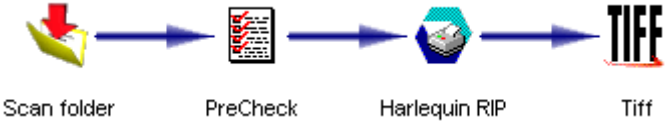


Figure 11.1 PreCheck workflow

11.2 PreCheck controls

Right-click the PreCheck module to display the pop-up menu showing all the configuration and viewing options:

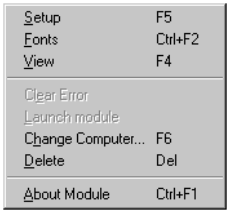


Figure 11.2 PreCheck module pop-up

The following controls are available for the PreCheck module:

- **Setup**—see "PreCheck Setup" on page 131.
- **Fonts**—see "Fonts" on page 136.
- **View**—see "PreCheck Viewer" on page 139.

See "Module shortcut menus" on page 18 for details on the other general options in the pop-up.

11.2.1 PreCheck Setup

To configure the PreCheck module, choose **Setup** from the PreCheck module pop-up. The PreCheck Setup dialog box opens.

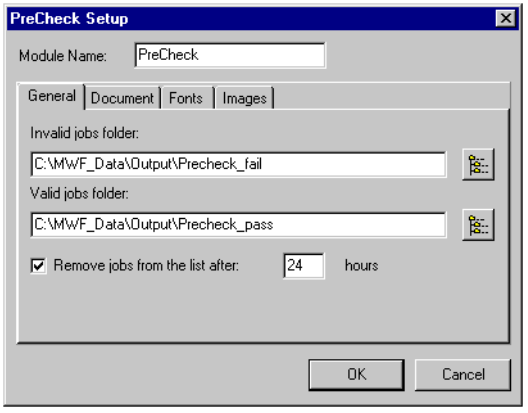


Figure 11.3 PreCheck Setup dialog box—General tab

The PreCheck Setup dialog box contains four tabs, which are described in the following subsections.

Module name

Allows you to enter a new name for the module. The module name is used wherever the module is referenced: on the workspace; in log files; when linking to and from other modules.

11.2.1.1 General tab

You can use the General tab, shown in Figure 11.3, to specify the folders to which files should be sent if they pass or fail the pre-flight check. You can also choose to delete these files after a specified amount of time.

Invalid jobs folder

This is the location of the folder, to which files that have failed the pre-flight check will be sent. You may either click within the text box and type in the path of your choice, or click  alongside the text box.

Valid jobs folder

This is the location of the folder, to which files that have passed the pre-flight check will be sent. You may either click within the text box and type in the path of your choice, or click  alongside the text box.

If you have linked the PreCheck module to a Harlequin RIP module, files that pass the pre-flight check will automatically be sent to the Harlequin RIP module.

Remove jobs from the list after: ...hours

Select this check box and enter an appropriate value in the accompanying text box to specify the amount of time to wait before removing files from the Valid and Invalid jobs folders. If you do not wish to delete files, deselect this check box.

11.2.1.2 Document tab

You can use the Document tab to specify that the file must be either a composite or pre-separated file. You can also specify the minimum number of pages in the file, and the minimum and maximum page size.

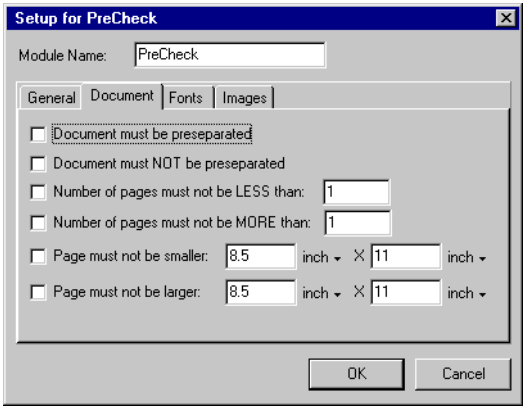


Figure 11.4 Document tab

Document must be preseparated

Select this check box if you wish to ensure that the file is a preseparated file. If you select this check box and the file is a composite file, it will be sent to the Invalid jobs folder.

Document must NOT be preseparated

Select this check box if you wish to ensure that the file is a composite file. If you select this check box and the file is a preseparated file, it will be sent to the Invalid jobs folder.

Number of pages must not be LESS than:

Enter a value in this text box specifying the minimum number of pages that must be defined within the file. This option will not work properly with preseparated files because most page setup applications label each color of a preseparated file as a distinct page. For example, the module will consider a 1 page job with four colors as 4 separate pages.

Number of pages must not be MORE than:

Enter a value in this text box specifying the maximum number of pages that can be defined within the file. This option will not work properly with preseparated files because most page setup applications label each color of a preseparated file as a distinct page. For example, the module will consider a 1 page job with four colors as 4 separate pages.

Page must not be smaller...x...

Select this check box and enter values in the accompanying check boxes to specify dimensions for the minimum page size allowed in the file. You must choose the units of measurement from the menus alongside these text boxes.

Page must not be larger...x...

Select this check box and enter values in the accompanying check boxes to specify dimensions for the maximum page size allowed in the file. You must choose the units of measurement from the menus alongside these text boxes.

11.2.1.3 Fonts tab

You can use the Fonts tab to check for missing fonts.

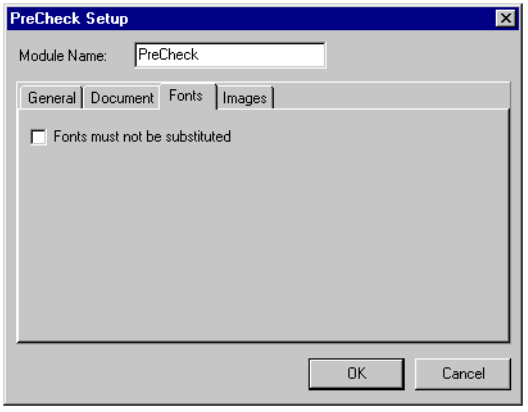


Figure 11.5 Fonts tab

In order to check to see if the fonts are correct, they must be loaded in the PreCheck module, as described in “Fonts” on page 136.

Fonts must not be substituted

Some graphics applications, such as Illustrator, check for font availability and replace any unavailable fonts with a default font, such as Courier. If you select this check box, the PreCheck module ignores the font substitution and sends the file to the Invalid jobs folder, even if the substitution fonts are available in the RIP. If you leave this check box unselected, you can specify substitution fonts in the Fonts dialog box, as described in “Fonts dialog” on page 136.

11.2.1.4 Images tab

You can use the Images tab to check images in a file for color, content and resolution (dpi) settings.

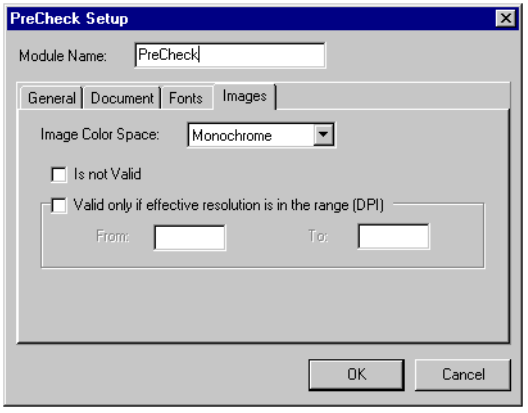


Figure 11.6 Images tab

Image Color Space

Choose a color format from this menu. You can then specify that images in the file must not be this color format by selecting the **Is Not Valid** check box. For example, you may wish to send files containing RGB images to the Invalid jobs folder so that they can be converted to CMYK images. Alternatively, you can specify that the chosen color format is only allowed if the resolution of the image is within a certain range by selecting the **Valid only if...** check box.

Is Not Valid

Select this check box to ensure that files containing images using the color format chosen in the **Image Color Space** menu will be sent to the Invalid jobs folder for correction.

Valid only if effective resolution is in the range (DPI)

Select this check box and enter some values in the accompanying text boxes to specify that images using the color format chosen in the **Image Color Space** menu are only allowed in files if their resolution (dpi) is within the specified range.

11.2.2 Fonts

To add, remove or substitute fonts, choose **Fonts** from the PreCheck module pop-up. The Fonts dialog opens.

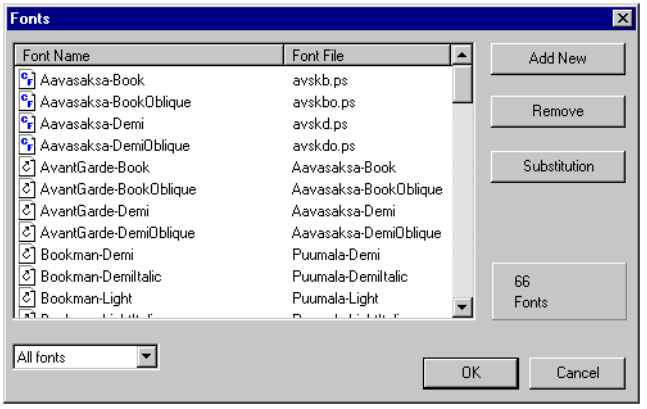


Figure 11.7 Fonts dialog

You can use the Fonts dialog to create an available fonts list, which should match the list of fonts available in the Harlequin RIP module.

Each kind of font in the Fonts dialog is distinguished by an icon in the margin. Use the menu in the lower left corner of the dialog to select the type of fonts to be viewed. The `All fonts` option displays all the available fonts.

Add New

Click the **Add New** button to display the Add Fonts dialog box, allowing you to select the folder where the PreCheck module can find the fonts you wish to add.

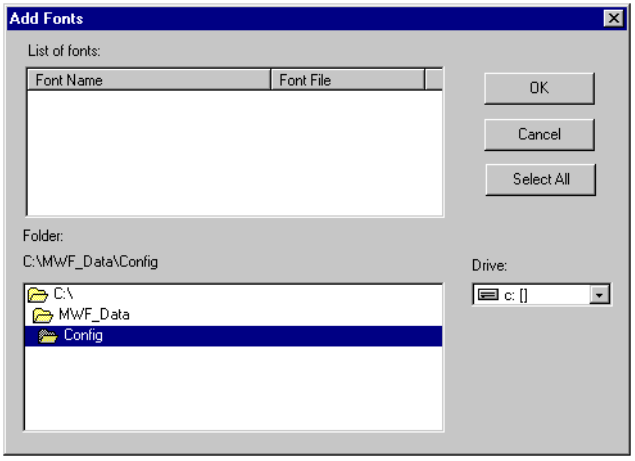


Figure 11.8 Add Fonts dialog box

You can select as many fonts as you like.

Shift

To select a block of several fonts, select the first font in the block, and then hold down the Shift key and select the last font in the block.

Ctrl

To select several unconnected fonts, hold down the Control key while making your selection.

To select all the fonts displayed in the list click the **Select All** button. When you have selected the required fonts to be loaded click **OK**. You will be prompted to restart the module for your changes to take effect.

Remove

To remove fonts from the system, highlight the fonts in the list and click this button. You must click **Yes** in the Confirmation dialog box.

Substitution

This option allows you to substitute one font for another.

The dialog that appears when this option is selected has two areas, the upper text box labeled **Name of the substitution**, is where you key in the name of the font to be substituted; and the lower menu, labeled **Font to Substitute**, is where you select the font to be used as the substitution.

Generally, it is preferable to use the exact font that was used in the design of the document. However, there are times when this is not possible; a font may be corrupt; or the original font may not have been sent with the original file. In such cases the only solution is to substitute with a font that is very similar in design to the original specified font. The customer may ask you to do this to get the job done on time.

One solution is to open up all the pages in the original application program and search and replace every occurrence of the problem font. This is not ideal as it is time consuming; you may not have the original application and if you miss one or two occurrences where the font was used the processing time would be wasted.

Having the PreCheck module offer to do the substitution for you “on the fly” is the solution because all occurrences are guaranteed to be substituted.

11.2.3 PreCheck Viewer

If you choose **View** from the PreCheck module pop-up menu, the PreCheck Viewer window opens:

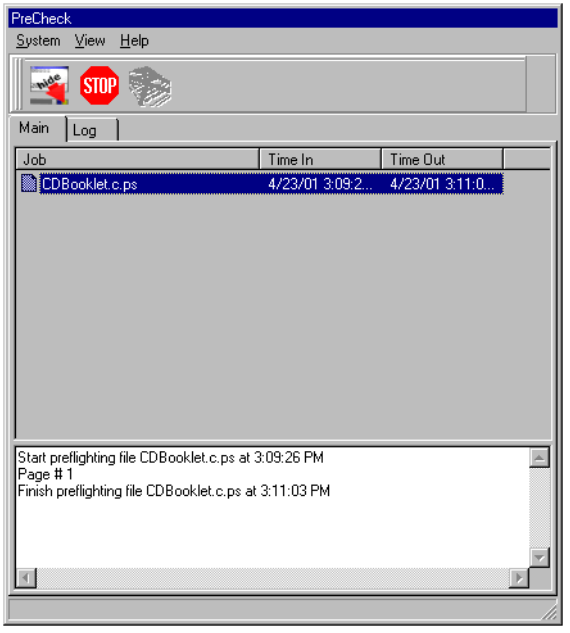


Figure 11.9 PreCheck Viewer

This dialog box consists of two tabs, described below, which allow you to view the progress of jobs.

11.2.3.1 Main tab

The Main tab contains a table listing files that have been processed by the PreCheck module. The time at which files were processed is listed. A log monitor window is also displayed in this tab, allowing you to view progress and error messages.

11.2.3.2 Log tab

The Log tab displays more detailed progress and error messages than those displayed in the Log monitor window in the Main tab. If a problem occurs when processing a file, you should always refer to this tab for further details.

For further details on the general controls in the dialog, see “Monitoring job processing in MWF” on page 17.

12

Load Balancer



The Load Balancer module allows you to direct PostScript language, Encapsulated PostScript (EPS) and Portable Document Format (PDF) files to multiple Harlequin RIP modules running on the network. You can determine how files are distributed between the Harlequin RIP modules by choosing to use either load balancing, polling or file masking.

The Load Balancer module also allows you to:

- Monitor multiple Harlequin RIP modules from a central location.
- Re-queue files to different scan folders.

See “Load Balancer Viewer” on page 148 for further details on these file and RIP management features. See below for further details on how the Load Balancer module fits into a typical workflow.

12.1 Load Balancer workflow

The Load Balancer module accepts PostScript language files, Encapsulated PostScript and PDF files from a scan folder. These files are then typically distributed amongst multiple Harlequin RIP modules by sending the files to the relevant scan folder for each Harlequin RIP module. All the Harlequin RIP

modules must output to the same type of module, for example the TIFF file format module or the HP Plotter module. The figure below illustrates such a workflow:

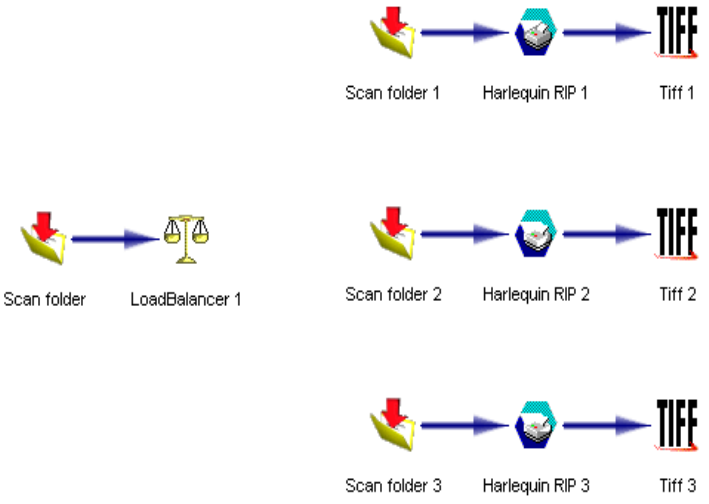


Figure 12.1 Load Balancer workflow

12.2 Load Balancer controls

Right-click the Load Balancer module to display the pop-up menu showing all the configuration and viewing options:

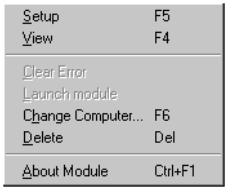


Figure 12.2 Load Balancer module pop-up

The following controls are available for the Load Balancer module:

- **Setup**—see "Load Balancer Setup" below.
- **View**—see "Load Balancer Viewer" on page 148.

See "Module shortcut menus" on page 18 for details on the other general options in the pop-up.

12.2.1 Load Balancer Setup

To configure the Load Balancer module, choose **Setup** from the Load Balancer module pop-up. The Load Balancer Setup dialog box opens.

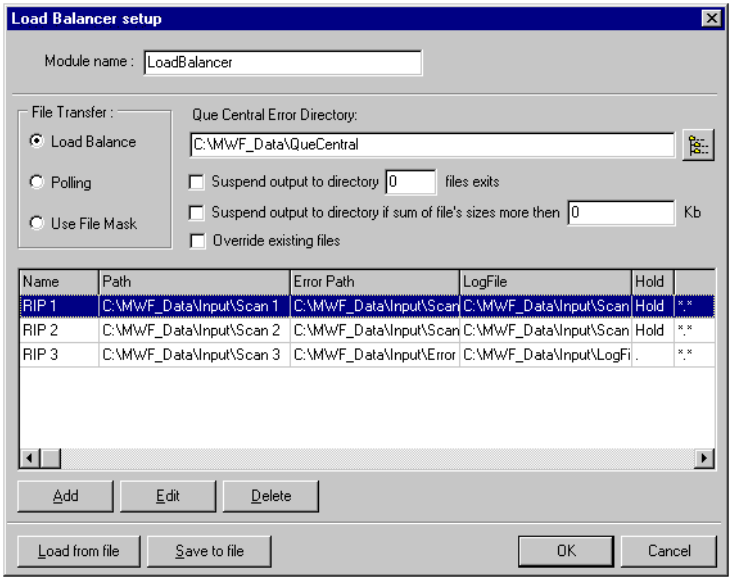


Figure 12.3 Load Balancer Setup dialog box

The options in the Load Balancer Setup dialog box are all output options. This dialog box also contains a Scan folder table, listing the scan folders connected to Harlequin RIP modules, to which files will be sent. Both the output options and the Scan folder table are described in the following subsections.

12.2.1.1 Output options

Module name

Allows you to enter a new name for the module. The module name is used wherever the module is referenced: on the workspace; in log files; when linking to and from other modules.

File Transfer

Select a radio button to specify how you wish the files to be distributed amongst the multiple Harlequin RIP modules.

Load Balance Select this radio button to balance the load between the Harlequin RIP modules, according to specific criteria. For example, you can suspend output to a scan folder if 5 files already exist in that folder, or if the total size of the files in the scan folder exceeds 1000 Kb. Files are then sent to the next available scan folder.

Polling Select this radio button to send files to whichever RIP is free for processing. If all RIPs are free for processing, individual files are sent to each Harlequin RIP module, in the order that they appear in the Scan folder table.

Use File Mask Select this radio button to use a file mask, such as `*.eps`, to decide which files will be sent to each Harlequin RIP module. For example, when adding the scan folder of a particular Harlequin RIP module to the Scan folder table, you can specify in the `Mask` text box that only PDF files (`*.pdf`) will be submitted to that module, as described on page 147.

Load Balancer Error Directory

This is the location of the folder, to which files that cannot be accepted by the Load Balancer module will be sent. You may either click within the text box and type in the path of your choice, or click  alongside the text box.

Suspend output to directory ... files exist

Click this check box and enter a number in the text box to specify the maximum number of files allowed in a folder before changing scan folders when load balancing.

Suspend output to directory if the sum of the file's sizes more than...Kb

Click this check box and enter a number in the text box to specify a limit on the total file size of all files in a scan folder when load balancing. Once this limit is reached, files are sent to the next available scan folder.

Override existing files

Select this check box if you wish to overwrite files with the same name when sending files to scan folders.

12.2.1.2 Scan folder table

The Scan folder table lists the scan folders to which files can be sent. You can add or delete scan folders from the table, or you can edit the details for a selected scan folder. The order in which scan folders appear in the Scan folder table determines the order in which they are processed. For example, when load balancing, the Load Balancer module tries to send files to the next scan folder in the table if the current scan folder exceeds the specified limits.

Add

Click this button to add a scan folder to the list of available scan folders. The Add Directory dialog opens, which is the same as the Edit Directory dialog box shown in Figure 12.4, except that you must enter values in the text boxes.

Edit

Highlight a scan folder in the Scan folder table and click this button to edit the details. The Edit Directory dialog box opens.

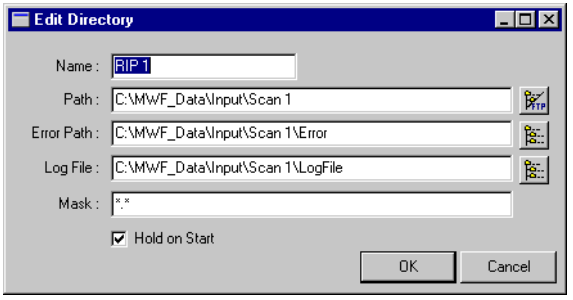


Figure 12.4 Edit Directory dialog box

The values that you enter into the text boxes in this dialog are displayed in the Scan folder table.

Name Enter a name to help you to distinguish the scan folder. For example, if you have three Harlequin RIP modules in your workspace, and the scan folder is connected to the first module, you can label the scan folder as `RIP 1`, as shown in Figure 12.4. This field can display up to 256 characters with spaces.

Path This is the location of the scan folder, to which files processed by the Load Balancer module will be sent. You may either click within the text box and type in the path of your choice, or click alongside the text box.

Error Path This is the location of the folder, to which files that are not successfully transferred to the scan folder will be sent. By default, the module creates an `Error` folder in the scan folder. You may either click within the text box and type in the path of your choice, or click alongside the text box.

Log File This is the location of the folder, in which a log file containing error messages will be created. By default, the module creates a `LogFile` folder in the scan folder. You may either click within the text box and type in the path of your choice, or click  alongside the text box.

Mask Enter a file mask to specify which type of files can be sent to the scan folder. For example, if you want only PostScript language files to be sent to the scan folder, use the file mask `*.ps`. The default file mask is `*.*`, which accepts all types of files.

Hold on Start Select this check box to place all jobs on hold when they are sent to the scan folder. You can release the jobs for processing in the Load Balancer dialog box, as described in "Hold and Release Directory" on page 149.

Delete

Highlight a scan folder in the Scan folder table and click this button to delete the selected scan folder.

Load from file

Click this button to open a file browser, which you can use to open a `.stp` file containing the settings for a previously created Load Balancer setup.

Save to file

Click this button to save the current Load Balancer setup as a `.stp` file. You can click the **Load from file** to open this file at a later date, which will restore the settings from the Load Balancer setup.

12.2.2 Load Balancer Viewer

If you choose **View** from the Load Balancer module pop-up menu, the Load Balancer Viewer opens:

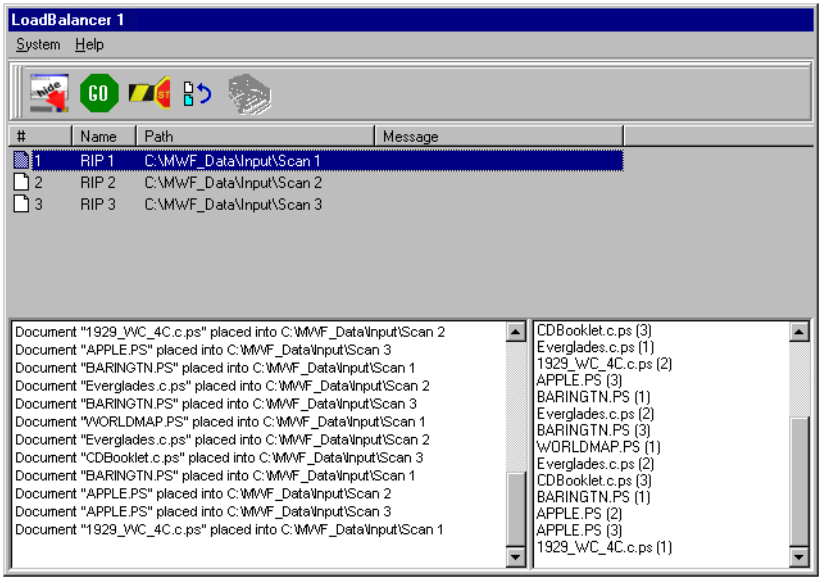


Figure 12.5 Load Balancer Viewer

This dialog box consists of a table listing the status of each scan folder, as well as two log monitor windows, in which you can view progress and error messages, and details of where files have been sent. Various file management functions are controlled via the toolbar of icons at the top of this dialog box.

#

This is a number allocated to the scan folder by the Load Balancer module that reflects the order in which it appears in the Scan folder table, as described in “Scan folder table” on page 145.

Name

This is the name you assigned to the scan folder, as described on page 146.

Path

This is the path of the scan folder, as described on page 146.

Message

This column of the Scan folder table displays messages relating to the status of the scan folder.

Some icons in the toolbar of the Load Balancer dialog allow you to manage files, and are particular to the Load Balancer module.

Hold and Release Directory



You can use this button to stop and start the processing of files in a scan folder. Highlight a scan folder in the Scan folder table and click this button to place all jobs in the scan folder on hold. In this instance the page icon in the Name column changes from white to blue.

Move files from directory



You can use this button to transfer files between scan folders. Highlight the scan folder from which you wish to transfer files and click this button. A dialog opens in which you must specify the scan folder to which you wish to transfer files. Choose one of the available folders and click **OK**.

For further details on the general controls in the dialog, see “Module shortcut menus” on page 18.

13

Down Sample



The Down Sample module takes in high-resolution raster files that have been processed by the Harlequin RIP and down samples their resolution (dpi) for proofing on lower resolution printers. This module automatically down samples the files according to the resolution of the selected output device. This module also allows you to proof a broadsheet page on any size printer, automatically fitting to the page size of the printer. This allows RIP-Once proofing.

13.1 Down Sample workflow

The Down Sample module accepts high-resolution, raster image data from the Harlequin RIP, which it downsamples before passing it onto a low-resolution output device to produce a proof. This module is therefore typically placed between a Harlequin RIP module and an output device module, such as HP Plotter. The figure below illustrates such a workflow:



Figure 13.1 Down Sample workflow

13.2 Down Sample controls

Right-click the Down Sample module to display the pop-up menu showing all the configuration and viewing options:

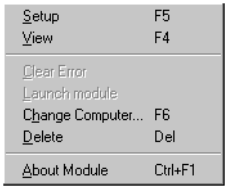


Figure 13.2 Down sample module pop-up

The following controls are available for the Down Sample module:

- **Setup**—see "Down Sample Setup" below.
- **View**—see "Down Sample Viewer" on page 154.

See "Module shortcut menus" on page 18 for details on the other general options in the pop-up.

13.2.1 Down Sample Setup

To configure the Down Sample module, choose **Setup** from the Down Sample module pop-up. The Down Sample Module Setup dialog box opens.

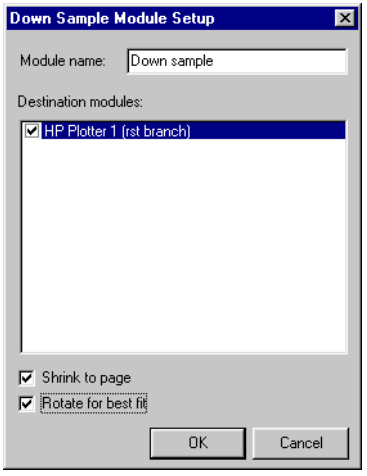


Figure 13.3 Down Sample Module Setup dialog box

Because the Down Sample module automatically detects the resolution of the selected output device, there are minimal controls in this dialog.

Module name

Allows you to enter a new name for the module. The module name is used wherever the module is referenced: on the workspace; in log files; when linking to and from other modules.

Destination modules

All output device modules linked to the Down Sample module automatically appear in this list. Select the check box of the output device to which you wish to send downsampled files. The Down Sample module can then detect the resolution of the output device.

Shrink to page

Select this check box to ensure that pages bigger than the page size in the printer are shrunk to fit. For example, you can use this feature to output pages that have been processed for broadsheet output on a printer containing A4 paper.

Rotate for best fit

When selected, the page is rotated so that the best fit is obtained according to the paper size you are printing on.

13.2.2 Down Sample Viewer

If you choose **View** from the Down Sample module pop-up menu, the Down Sample Devices Viewer window opens:

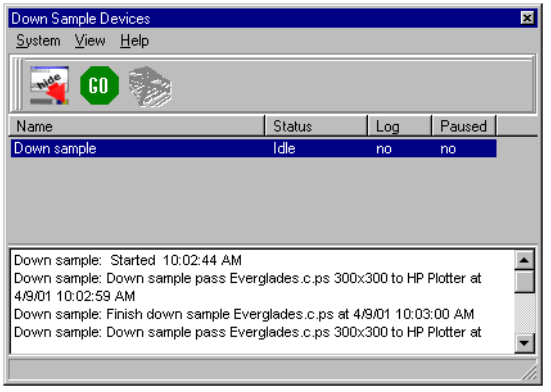


Figure 13.4 Down Sample Devices Viewer

This dialog box allows you to view the status of all the Down Sample modules that are in the workspace. This dialog consists of a table listing the status of each Down Sample module, as well as a log monitor window in which you can view progress and error messages. All messages in the log monitor window are prefixed by the name of the module to which they refer.

Name

This column lists the name of the Down Sample module that appears in the workspace. The name of the Down Sample module is specified in the Down Sample Module Setup dialog box, as described in “Down Sample Setup” on page 153.

Status

This column indicates the status of the module.

Log

This column indicates whether or not the module is set to record all messages in a log file (`yes/no`). See "Log file directory" on page 15 for details on how to specify the location and other properties of the log file.

Paused

This column indicates whether or not the module has been paused (`yes/no`). You can click the **GO/STOP** button to start or stop the module.

For further details on the general controls in the dialog, see "Monitoring job processing in MWF" on page 17.

14

Composition Server



The Composition server module accepts pre-separated raster files from a RIP. The files are then recombined for proofing. Bleed and trim boxes can be applied to the pages.

With this module you are able to check the overall position of the pages within the plate flat using the dots generated from the high-resolution RIPs, meaning no re-ripping of files is necessary. This provides you with accurate proofing of the high-resolution plates that are going to press including accurate rosette patterns, no color shifting, accurate traps and verification of any overprint settings or black generation formulas.

This module can also cut pages apart in 4, 8, or 16 up flats from single page proofing (single or duplex).

14.1 Composition server workflow

The Composition server module is typically placed between a Down Sample module and a proofing device—it accepts rasters and outputs imposed (composed) rasters for use on the proofing device.

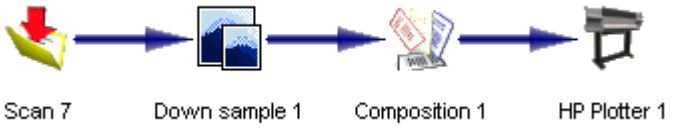


Figure 14.1 Composition workflow

14.2 Composition server controls

Right-click the Composition server module to display the pop-up menu showing the configuration and viewing options:

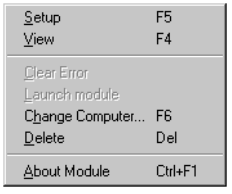


Figure 14.2 Composition server pop-up

The following controls are available for the Composition server module:

- **Setup**—see “Composition server setup” on page 159.
- **View**—see “Composition Viewer” on page 162.

See “Module shortcut menus” on page 18 for details on the other general options in the pop-up.

14.2.1 Composition server setup

To configure the Composition server module select **Setup** from the pop-up menu.

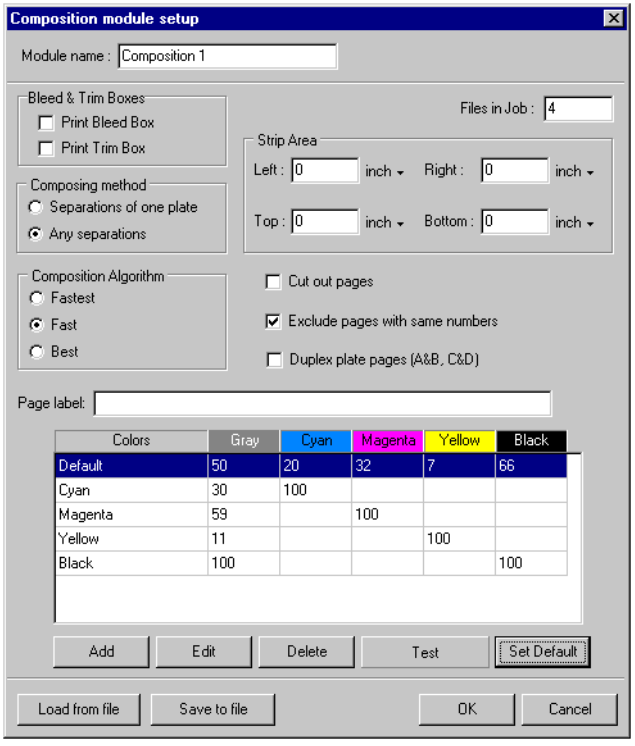


Figure 14.3 Composition server setup dialog box

This dialog provides access to various configuration options.

Module name

Allows you to enter a new name for the module. The module name is used wherever the module is referenced: on the workspace; in log files; when linking to and from other modules.

Bleed & trim boxes

Selecting these boxes applies a hairline rule around the page borders to show bleed and trim areas.

Composing method

Separation of one plate

reads the plate's name and puts the individual CMYK plates with the same name back together for proofing. A naming convention must be used so that the plates can be identified. For example: `plate01.c`; `plate01.m`; `plate01.y`; `plate01.b`.

Any separation reads the value in the **Files in the job box** and then waits for the appropriate number of jobs before recombining them into a single raster. This method allows you to check multiple black plates and spot colors.

Composition algorithms

Enables the recombining of files. **Best** is the slowest method but provides the best quality output.

Files in job

Displays the number of files in the job. For example, a typical color separation file contains four files in the job—Cyan, Magenta, Yellow and Black.

Strip area

This option allows you to crop the rastered plate or file to exclude area on all sides of the overall image as it is recombined. An example of this is removing the gripper space on plate flats.

Cut out pages

This option takes an already imposed raster file (for example, 4up, 8up and 16up) and breaks it down into its individual pages (1,2, 3, 4 and so on). Therefore, if you have a proofing device which is only capable of imaging pages that are smaller that the full size imposed files, this option can be used to cut the imposed pages into a size that the proofer can handle.

Exclude pages with same numbers

This option does not allow pages that have the same distinct number.

Duplex plate pages (A&B, C&D)

This option is primarily used for book proofing. Pages on plates are cut out and page separations are recombined and printed on both sides of the paper on a duplex capable color printer. This option is only available when the **Cut out pages** option is checked.

Page label

This option provides the ability for you to label your pages—simply key in the required text.

Add

This option allows you to specify all the separation colors that the Composition module is expected to process and recombine. Select **Add** and enter the required value for each plate. The Gray value is used to represent the color on a monochrome printer.

Edit

Allows you to change the name of the color and density of the color channels in each separation.

Delete

Allows you to delete any of the spot colors that you may have added. Default colors cannot be deleted.

Test

This option displays a preview of the selected color.

Set default

Converts all the colors back to their default values—that is, the colors are reset to the values created at installation time and any new colors are removed.

Load from file

Allows you to load and use previously created color profiles.

Save to file

If you have added separation colors to the Colors dialog you can save the configuration setup as a `.stp` file. This is useful if you need to re-build MWF configurations or load this information on a different or new server.

14.2.2 Composition Viewer

Select the **View** option from the pop-up menu or double-click the Composition module to display the Composition Viewer window.

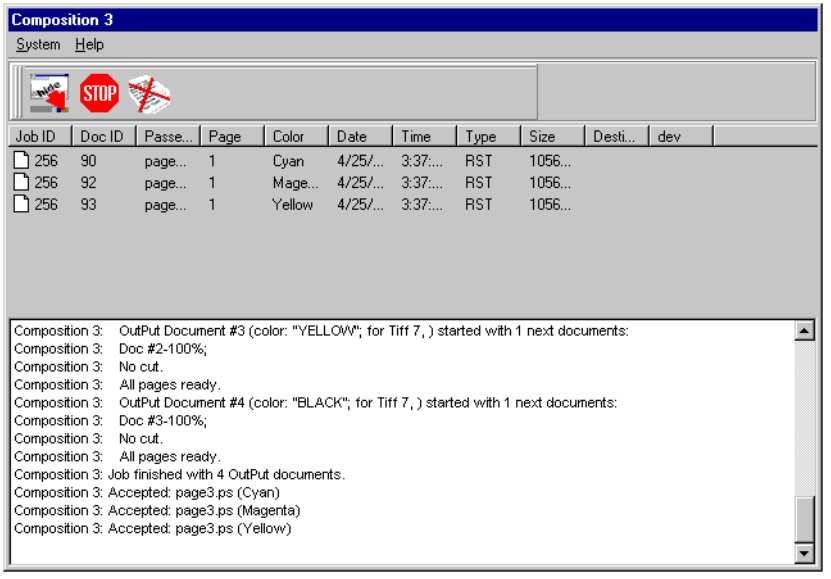

Composition 3
System Help
STOP
Job ID Doc ID Passe... Page Color Date Time Type Size Desti... dev
256 90 page... 1 Cyan 4/25/... 3:37:... RST 1056...
256 92 page... 1 Mage... 4/25/... 3:37:... RST 1056...
256 93 page... 1 Yellow 4/25/... 3:37:... RST 1056...
Composition 3: OutPut Document #3 (color: "YELLOW"; for Tiff 7,) started with 1 next documents:
Composition 3: Doc #2-100%;
Composition 3: No cut.
Composition 3: All pages ready.
Composition 3: OutPut Document #4 (color: "BLACK"; for Tiff 7,) started with 1 next documents:
Composition 3: Doc #3-100%;
Composition 3: No cut.
Composition 3: All pages ready.
Composition 3: Job finished with 4 OutPut documents.
Composition 3: Accepted: page3.ps (Cyan)
Composition 3: Accepted: page3.ps (Magenta)
Composition 3: Accepted: page3.ps (Yellow)

Figure 14.4 Composition Viewer

For more information on the standard controls displayed in the View dialog see “Monitoring job processing in MWF” on page 17.

As each page is run through the Composition module it appears in the upper list along with all the messages relating to the module in the lower window.


Click this icon to abort selected jobs.

15

Imposition



The Imposition module imposes PostScript language files, EPS, and PDF files into signature-ready plates for output. You are able to create as many custom signatures you require, manually or with the use of a Signature wizard.

Once you have created a signature it remains available for future use.

Note: Scripting must be installed on your PC for the Imposition module to function properly.

15.1 Imposition workflow

The Imposition module produces its signatures from EPS, PDF and PostScript language files, and produces EPS and PostScript language files. The module is typically placed in the workflow before the Harlequin RIP module:

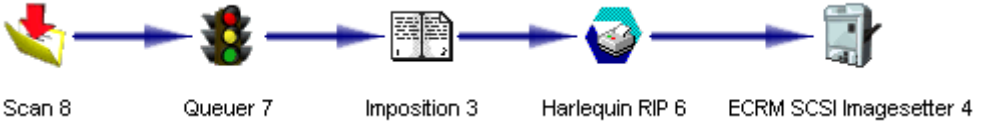


Figure 15.1 Imposition module workflow

15.2 Imposition controls

Right-click the Imposition module to display the pop-up menu showing the configuration and viewing options:

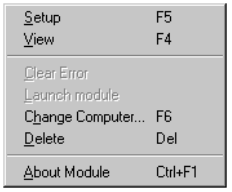


Figure 15.2 Imposition pop-up

The following controls are available for the Imposition module:

- **Setup**—see "Imposition setup" below.
- **View**—see "Imposition Viewer" on page 189.

To use the Imposition module the following tasks must be completed (in order):

- Create one or more new projects.
- Create a page sequence for the project.
- Create one or more plate signatures (manually or using the Signature wizard).

See "Module shortcut menus" on page 18 for details on the other general options in the pop-up.

15.2.1 Imposition setup

To configure the Imposition module select **Setup** from the pop-up menu to display the Imposition setup dialog box.

15.2.1.1 Create new projects

New projects can be created when the Project tab is selected in the left-hand window of the Imposition setup dialog box.

Click the **New project** button to create a new project.

Enter a folder and project name followed by clicking **OK**. (Names can be a maximum of 20 characters. No spaces are allowed.) The project name and folder is an integral part of the Imposition module configuration file and is stored at `\MWF_Data\Config` in a file called `xImpos.set`.

A number of projects can exist in the Imposition module. Use the **New project** button to create as many projects as you need.

Click on the plus sign (+) to the left of the folder you named and then select your project. Once you have selected your project, the remaining three buttons on the right side of the Imposition Setup dialog box become available.

To use the Imposition module at least one project must be configured. Click the **Set as current** button. The Imposition bar at the left side of the Setup dialog box becomes available.

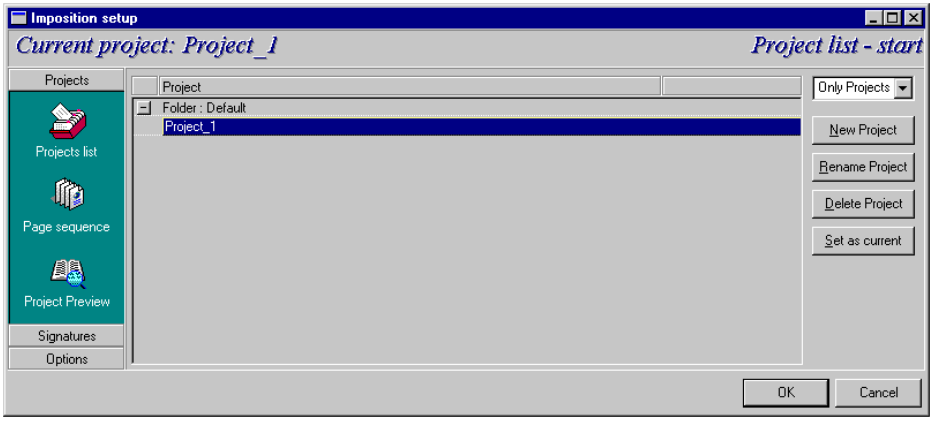


Figure 15.3 Project list dialog box

The Imposition bar contains three tabs:

Projects	The name of the job to be completed.
Signatures	The configuration of plates and pages inside the projects. For more information see “Creating the plate signature” on page 168.

Options	Input/output directories and advanced options. For more information see “Options” on page 185.

15.2.1.2 Projects

The Projects tab on the Imposition bar contains three icons, which are used to display the project list, page sequence, and preview.

Project List

With the **Project List** icon selected a drop-down box at the upper-right corner allows you to display the project contents by:

`Table`	This view displays each project with the list of plate signatures relating to each project.
`Project and Plate`	This view displays each project with its associated plate signatures as a collapsible list.
`Only Projects.`	This view only displays the project names.

Use the **New project**, **Rename project** and **Delete project** buttons to create a new project, change the name of an existing project or to permanently remove a project from the list.

The **Set as current** option makes the currently selected project the active project so that it can be configured.

Page Sequence

Now that the project has been created, the next step is to configure the page sequence. Select the **Page Sequence** icon in the Imposition bar to display the Page sequence dialog:

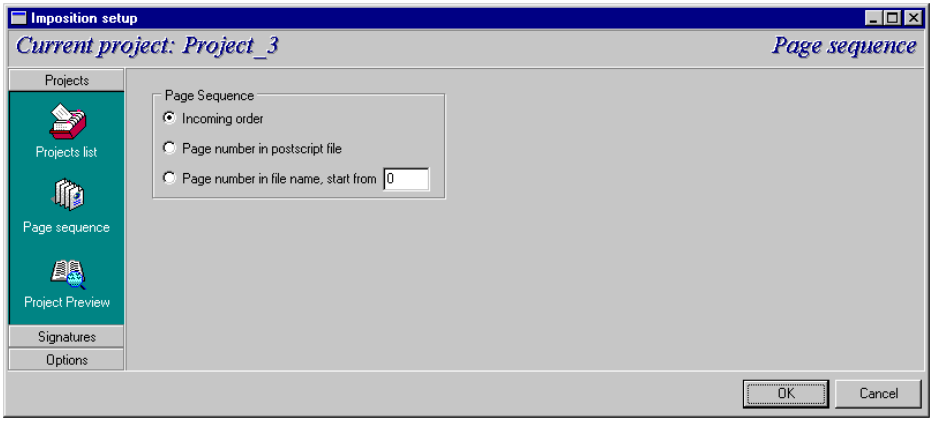


Figure 15.4 Page sequence dialog box

Choose a page sequence to determine the order the pages are loaded into the system. Three options are available:

Incoming order Pages are placed in the signature in the order the page files enter the system.

Page number in PostScript file
A page number is placed inside the PostScript language file as a comment. The Imposition module reads the files as they enter the system and then places them on the signature.

Page number in file name, start from
The number you enter into this field refers to the position of the page number in the file name that the module is reading. For example, for the file name `MWF83TIFF` you would enter in the **Start from** field the

number `4`, indicating that the page number, in this example `83`, starts at the 4th slot (character) from the left.

Project Preview

This option previews the entire project, however at least one plate signature must be created before this feature works. When selected, the entire project, including all plate signatures, are displayed in a scrollable window.

Project Script

This option displays the entire Visual Basic Script. The Project script icon is displayed only when the **Advanced user** check box is selected in the Options dialog. See "Advanced user" on page 188 for further details.

15.2.1.3 Creating the plate signature

When the project has been created and the page sequence determined, the next step is to set up the plate signatures. A plate signature is a template specifying the arrangement of individual pages to make-up a complete sequence of flats ready for output on an imagesetter.

Select the **Signatures tab** from the Imposition bar to display the Signature list dialog box see Figure 15.5, page 169.

Add Signature

For the options in the Signature list to become active, a signature must first be created. Click the **Add Signature** button. In the Enter signature name dialog key-in a name for the plate and click **OK**.

The plate name must begin with a letter or underscore and cannot contain spaces. Letters, digits, and underscores are allowed after the first character. (Visual Basic script-reserved words cannot be used as signature names.)

Multiple signatures can exist in the projects simultaneously. Use the **Add Signature** button to create as many signatures as needed.

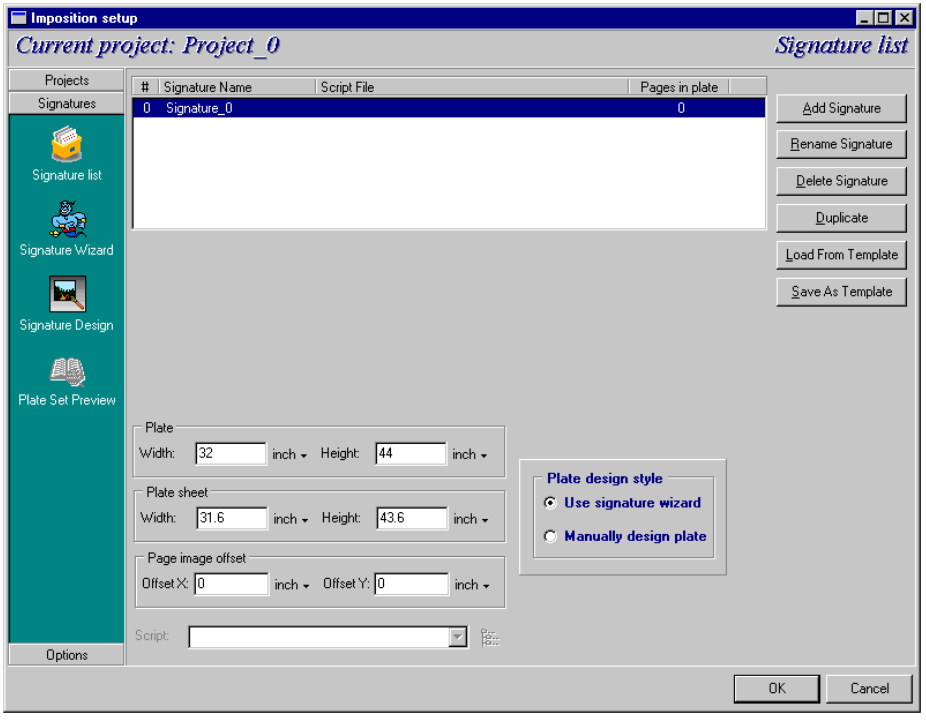


Figure 15.5 Signature list dialog

By using the buttons at the right of the Signature list, plate signatures can be renamed, deleted or duplicated. In addition, plates signatures can be written to and recalled from disk by using the **Load from template** and **Save as template** buttons.

Page design style

Plate signatures are set up manually or by using the Signature wizard. Alternatively, you can use a combination of both Signature wizard and Manual design plate options.

Use signature wizard

Select this radio button to activate the Signature wizard icon making it available for use. For more information see “Signature wizard” on page 171.

Manually design plate

Select this radio button to manually set up the plate signature. For more information see “Manual plate signature design” on page 181.

Whether you decide to use the Signature wizard or create manual signatures you should complete the plate dimensions before proceeding. These values relate directly to the size of the output media onto which the signature is placed.

It is possible to use a combination of the Signature wizard and Manual design plate options. The Signature wizard is designed to position all pages perfectly centered on the press sheet. This is how most press sheets are set up. When you have applied the changes all pages and gutters are configured for you in relation to the center of the sheet. At this point, you can go back to the Signature List and change from Signature wizard to Manually design plate. All features of the Signature Design area now become accessible for you to finish adjusting anything on the sheet.

Plate width/height

This is this actual width and height of the plate from the plate device—usually aluminium or polyester.

Enter the width and height of the actual plate. (This *must* be filled out before the signature is activated.)

Plate sheet width/height

The sheet width and height represents the size of the sheet of paper that goes through the printing press and gets printed on.

Imageable area is the area on that sheet of paper that can be printed (affected by things such as non-printing gripper margins, non-printing gutters and folds, and so on.) Therefore, plate sheet sizes are usually larger than the imageable area.

Enter the width and height of the plate sheet. This can be the same or less, but may not exceed the plate width and height. (This *must* be filled out before the signature is activated.)

Page image offset

Enter the X offset (left side of pages), and Y offset (bottom of the pages) to trim the pages.

Script (Manual plate design only)

This option provides you with the ability to choose the Visual Basic code that is used to design plates.

Options include:

- `ImpText.vbs`
- `Perfect_Bound&Sheetwise.vbs`
- `Perfect_Bound&Work-and-tumble.vbs`
- `Perfect_Bound&Work-and-turn.vbs`
- `Saddle_Stitched&Work-and-tumble.vbs`
- `Saddle_Stitched&Work-and-turn.vbs`
- `Successive.vbs`

To create manual plate signatures see “Manual plate signature design” on page 181.

15.2.1.4 Signature wizard

To create plate signatures using the Signature wizard click the **Signature wizard** icon from the Imposition bar. This displays the Signature wizard dialog.

The Signature wizard provides three icons for the creation of the plate signature:

- Page and page block layout
- Plate layout
- Apply

Page and Page Block Layout

The Page and Page Block Layout dialog allows you to define the size of the pages and format of the rows and columns for the plate signature. You are also provided options that allow you to rotate some or all of the pages on the plate signature.

You do not have to define a complete plate signature here. You can define a block of pages and then step and repeat that block of pages to create a complete plate signature. For more information see “Plate Layout” on page 174.

The Page and page block dialog is displayed when the **Page and page block layout** icon is selected in the Imposition bar:

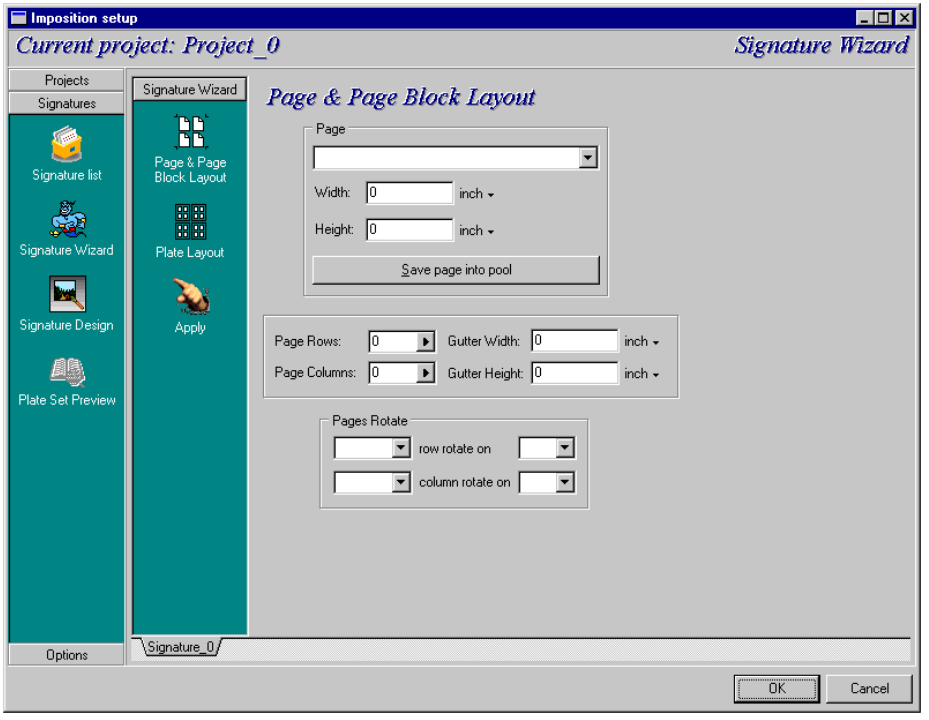


Figure 15.6 Page and page block layout dialog

Page size definition

The options in the Page section of this dialog define the size of the pages to be added to the plate signature. If pages have already been defined you can select them from the drop-down list. Alternatively, to create a new page size enter the width and depth of the new page and click **Save page into pool**.

Page rows/columns

These fields define the number of rows (top to bottom) and columns (side to side) used for the plate signature.

Gutter width/height

The Gutter width field defines the amount of space to be placed between columns. The Gutter height field defines the amount of space to be placed between the rows.

Pages rotate

From the drop-down list you can select how you want to rotate the pages. You can rotate `None` of the pages, `All` of the pages or only the `Odd` or `Even` pages. In addition to this, you can select the amount by which you want to rotate the page rows or columns. The options are: `90`, `180`, or `270` degrees.

Plate Layout

Select the **Plate Layout** icon from the Imposition bar to display the Plate Layout dialog:

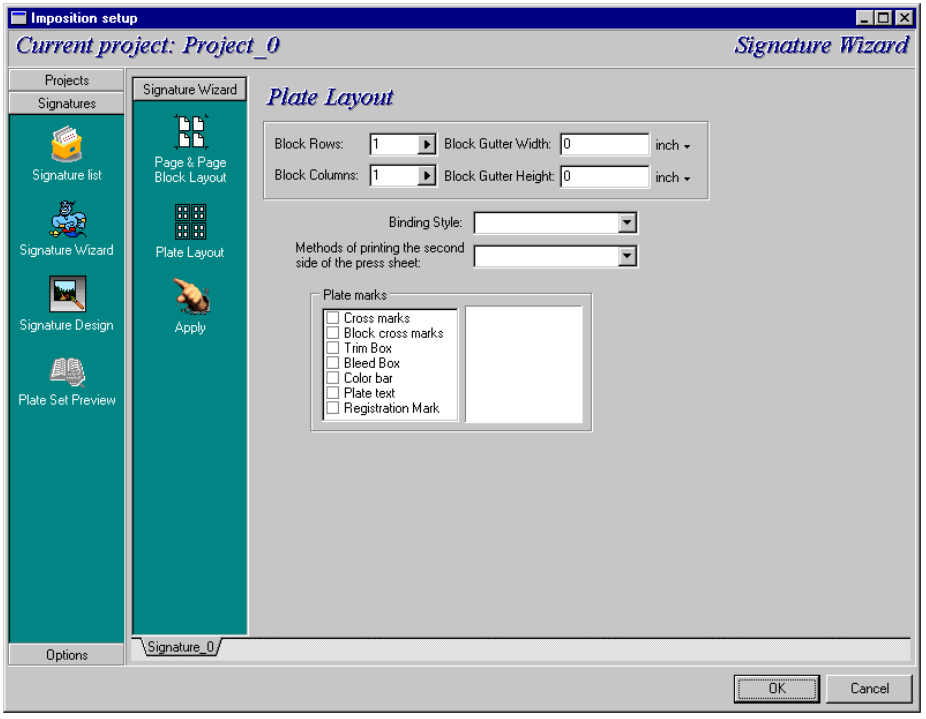


Figure 15.7 Plate layout dialog

Block rows/columns

If required, the page layout scheme defined in the Page and Block Layout dialog can be stepped and repeated to create a larger plate signature. Enter a value in the **Block Rows** and **Block Columns** boxes to define the number times you wish to repeat the rows and columns respectively.

Block gutter width/height

If you are creating your plate signature by stepping and repeating rows and columns, enter values in the **Block gutter width** and **Block gutter height** boxes to define the amount of space you want to be placed between the blocks of columns and rows respectively.

Bindings Style

The Bindings style option allows you to decide how you would like to bind your pages. The following options are available:

Perfect binding
Perfect binding is a relatively simple process, that collates the various signatures that make up the pages of the book, then clamps them just above the spine. The collated pages pass over a saw which removes about 1/8" from the spine of each page. This ensures that each page makes contact with the hot, viscous glue which is applied next.

Saddle-stitching
Saddle-stitching is used for binding a magazine or a catalog. The pages are stapled along the centerfold. If you took apart a magazine (removed the center staples) and looked at the piece of paper containing the front cover (the first page), you would notice that the sheet also contains the back cover. When you prepare an imposition for a saddle-stitched job, you must take into consideration that the pages on a single sheet of paper are not consecutive.

Successive This places pages into the imposition in numerical order [1,2,3,4,5,6,7,8].

Methods of printing the second side of the press sheet

Select the required method for printing the second side of the press sheet.

Sheetwise If the press uses a press sheet that can print 8 pages on a single side and your job contains 16 individual pages, you can set up a sheetwise imposition. You print the fronts of 8 pages, flip the paper and then print the backs of those 8 pages. In other words, if your jobs contain enough pages to fill up both sides of the press sheet, you can use a sheetwise printing scheme. However, if

your job contains 4 distinct pages and the press sheet can contain 8 pages, you need to use a different method (or else have a lot of wasted paper). When using a sheetwise layout, you need two separate plates for each color, one for each side of the press sheet.

Work and turn The work and turn layout uses a single plate for each color to print both sides of the paper. When the first side of the press sheet is printed, the paper is flipped over side-to-side and fed through the press again using the same gripper edge. When flipping, the top and bottom are not inverted. The top of the first side is the top on the second side. For example, if the press sheet supports 8 pages and your job contains 8 pages, you could either print the front 4, flip the page and print the back 4 pages (sheetwise printing), or you could set up a work-and-turn layout. In this layout, you would arrange all 8 pages on the plate. The pages would be carefully arranged so that when the press sheet is flipped, page 2 prints on the back of page 1, and page 1 prints on the back of page 2.

You end up with two complete front-and-back pages of each page on the press sheet. For a print run requiring 10,000 copies of each page, you only need to run 5,000 press sheets (not counting set-up and overrun prints).

Work and tumble

The work and tumble layout is similar to work and turn, except that when a sheet is printed on one side it is turned over (tumbled) on its shorter length and printed on the reverse by gripping the other long edge. The left side of the press sheet for the first side is the same as the left side of the press sheet on the second side. Again, you end up with two complete pages (front and back) on each press sheet.

Plate marks

The Plate marks option lets you select various predefined plate marks. The following options are available:

`Cross marks` Places a mark between individual pages in the layout.

`Block cross marks` Places a mark between step and repeat layouts of block signatures.

`Trim box` Places a trim box around all pages, with programmable offsets.

`Bleed box` Places a bleed box around all pages with programmable offsets. A bleed area is a printed area that when cropped, runs off the edge of the paper.

`Color bar` When a job includes halftones, the press sheet must have density bars outside of the page area. Grayscale density bars should be included on both monochrome and process color work. Color bars must be included on a process color press sheet. The press operator uses these marks to check the job as it prints. By measuring the gray balance shown in the gray scale density bars and the color combinations, the operator can adjust the press as necessary to maintain the best quality for that press.

`Plate text` Job information can be placed on the non-printable area of the plate by abstracting content from the PostScript language file. Example: [date] [time] [plate] [color]. This places the contents on the plate without brackets ([]).

It should be noted that [color] will label each plate with its particular color name *only* when a preseparated file is submitted to the module. Submitting a composite PostScript language file for imposition necessitates selecting the **Print Separation Names** check box in the

Colors tab of the output module in order to get the final plates labeled with the respective color name. See “Print Separation Names” on page 316 for further details.

`Registration mark`

When printing color jobs containing two or more colors, the press sheet must have registration marks.

These marks appear at the same location on each plate for the page and allow the press operator to determine if the plates are printing in proper register. When in register, the cyan, magenta, yellow, and black marks print on top of each other and should show as a single black mark. If one of the plates is out of register, the registration mark shows the problem.

Typically, you use four registration marks, one on each edge of the paper.

When plate marks are applied, they automatically appear on the plate. If plate marks need to be removed, manual mode must be used, see “Manual plate signature design” on page 181.

Apply

Clicking **Apply** creates the plate signature design. The Signature design dialog opens:

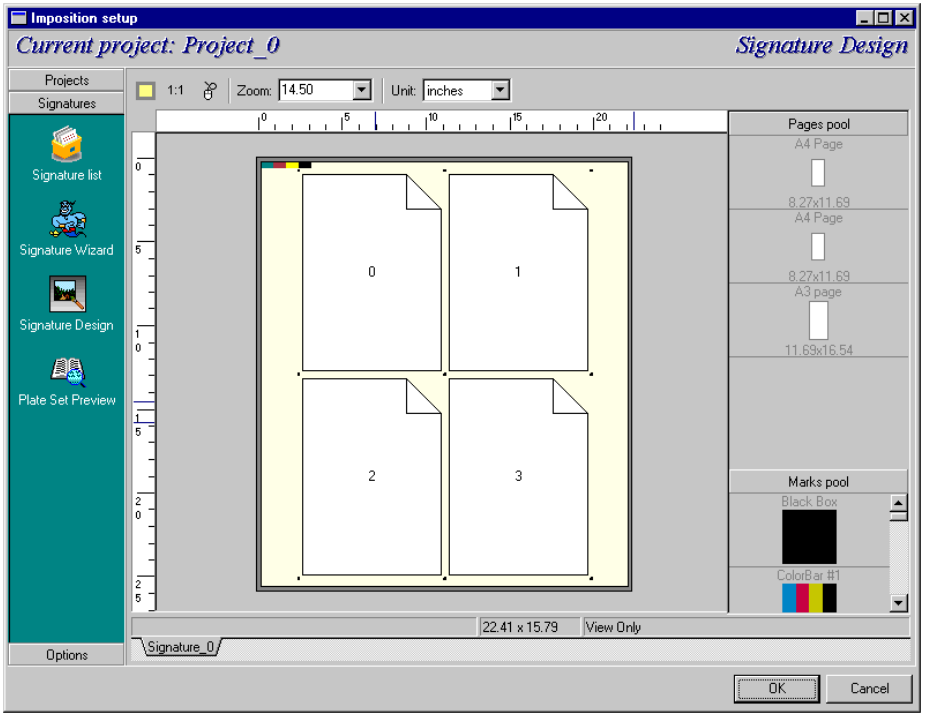


Figure 15.8 Signature design dialog (Signature wizard)

If you used the Signature wizard to help you create your plate signature, all options in the Signature design dialog area are inactive. However, options in the Signature Design area can become active if you go back to the Signatures tab and select the **Manually design plate radio** button. See “Page design style” on page 169 for more information.

If more than one signature has been defined, a number of tabs appear at the lower edge of the Signature design dialog. Select each tab to view the various designs.

You can view all the plate signatures you have created by selecting the Plate Set Preview icon in the Imposition bar.

If an error message appears, it is generally because you have chosen incorrect values somewhere. The system does not allow you to create an illegal signature or a signature with missing parameters.

Error messages can be avoided if you go back to the Signature List before choosing Plate Set Preview. The Parameters field in the Signature List becomes active immediately after applying a binding style in the Plate Wizard.

Look at the Signature List dialog and ensure that all the parameter fields are complete. These fields do not usually appear when creating a plate signature using the Signature wizard.

Previewing plates and projects

When the plate signature is completed you can use the **Plate Set Preview** option (under the Signatures tab) to view the completed signature. To preview the complete project, perhaps including multiple signatures, use the **Project Preview** option (under the Project tab).

Shown below is an example of the imposition scheme for a perfect bound 64 page, A4 size book, viewed as a Plate Set Preview.

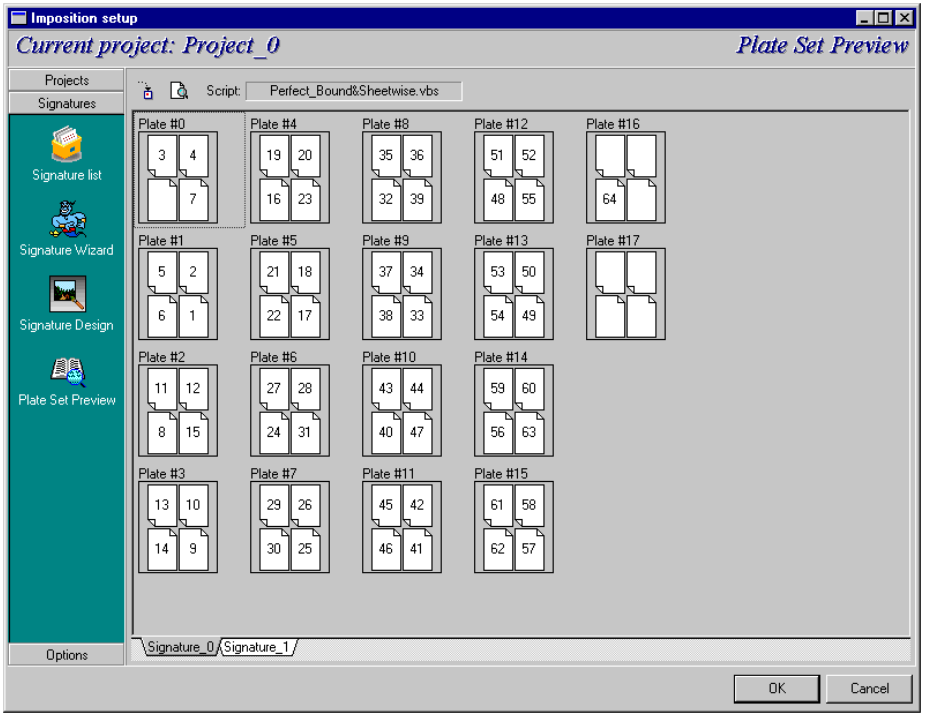


Figure 15.9 Plate set preview dialog

15.2.1.5 Manual plate signature design

An alternative to using the Signature wizard to create your plate signatures would be for you to manually create the signatures.

Use the following procedure to manually create plate signatures.

1. In the Signature list add a signature as previously described. See “Add Signature” on page 168.
2. Click the **Manually design plate** option.
3. Complete the Plate parameters as previously described, see “Page design style” on page 169.

4. Use the drop-down menu in the Script field to select a Binding Style and method of printing the second sheet. The options available directly relate to the options previously described under “Bindings Style” on page 175 and “Methods of printing the second side of the press sheet” on page 175.

5. When step 4 above is completed a Parameters section appears below the Signature list. Complete the values for **Start** and **End page numbers** (the start and end page numbers of the book). And if required, complete the **Row count** (the number of rows in the signature) and **Column count** (the number of columns in the signature).

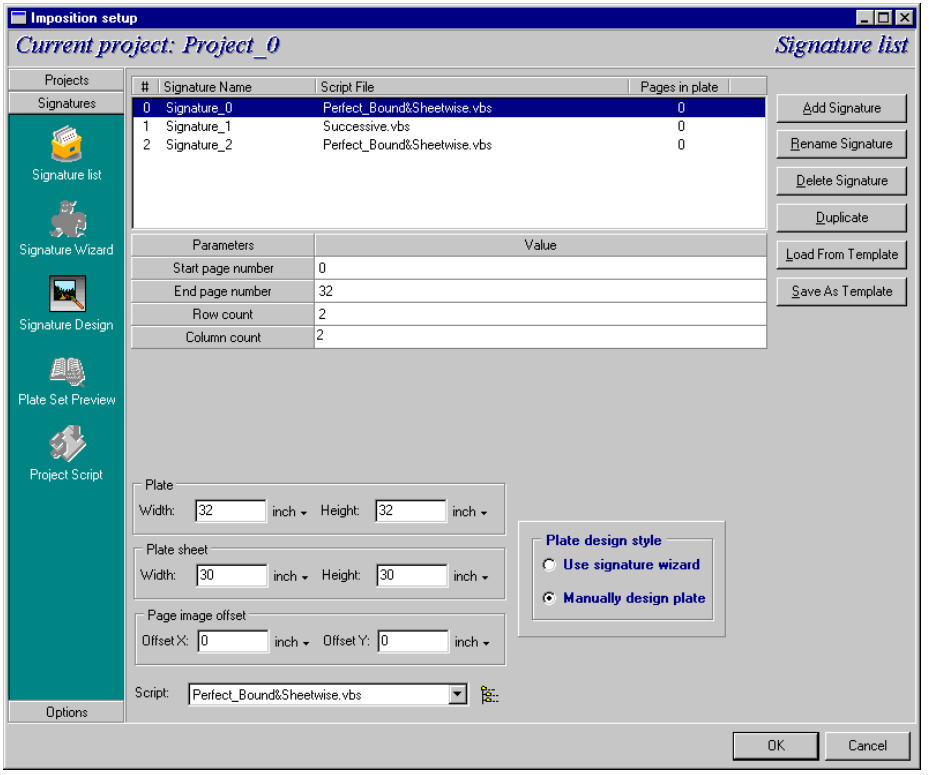


Figure 15.10 Signature list dialog showing Parameters

6. Click the **Signature Design** icon in the Imposition bar to display the Signature design dialog. In this case, the dialog opens with the signature containing no pages. However, unlike when this option is selected from the Signature wizard, you are now able to access all the controls.

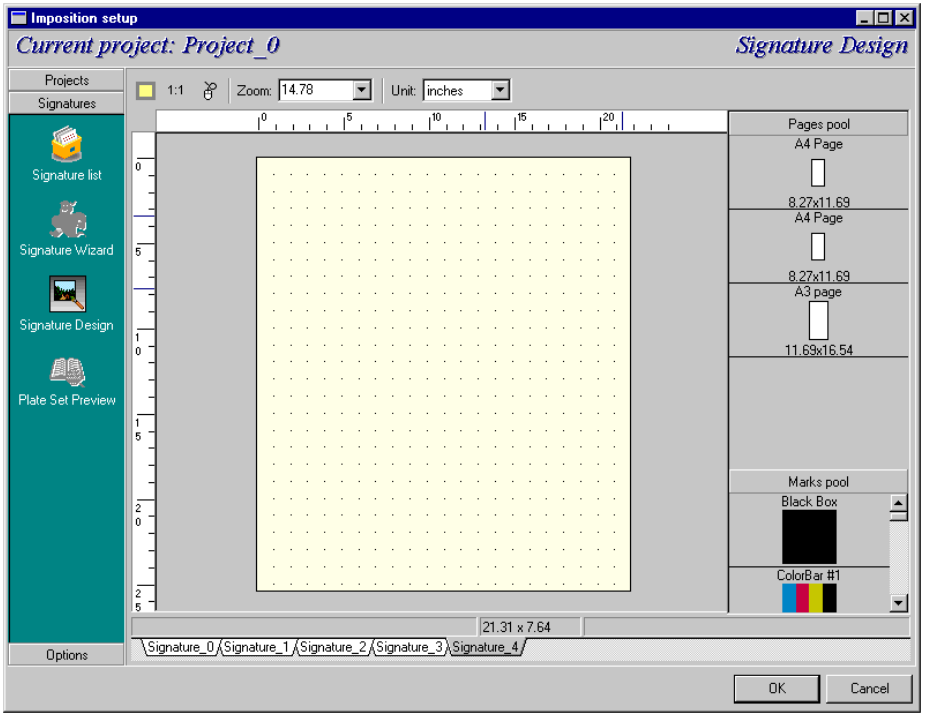


Figure 15.11 Signature design dialog (manual)

Clicking the yellow box icon at the top of the dialog scales the plate signature to a fit into the available space for the screen preview. The white mouse icon locks or unlocks the pages and marks on the plate. The Zoom drop-down menu zooms in and out on the plate layout screen. Units can be changed to different measurements.

7. To add pages to the signature, drag-and-drop pages from the Pages pool situated at the right side of the dialog. If no pages exist in the pool, or you would like to create some more, right-click **Pages Pool** to display a pop-up menu. The menu provides `New page`, `Edit page`, `Duplicate page` and `Delete page` options.

8. Click-and-drag marks from the Marks pool onto the plate and place them at any position.

   Objects on the plate (marks and pages) can be moved by selecting them and then using the **Alt+Arrow Up/Down/Left/Right** buttons. The pages and marks can be made to snap to the underlying grid by configuring a setting in the Options dialog see "Plate Design options" on page 189.

   Right-clicking the pages or marks displays a pop-up menu providing the following options:

   `Delete` — Use this option to remove the selected object from the layout. It does not remove the page or mark from the Page pool or Marks pool.

   `Rotate` — Select this option followed by the amount you would like the object to be rotated.

   `Change index` — With this option you can change the page number of a page on the signature.

   `Move to` — This option provides a further dialog allowing you to specify the precise location to which you would like the item to be moved.

   `Change size` — This provides you with the option of entering precise width and height values for the selected object.

   `Options` — You can define bleed and trim marks with this option. The bleed area is added to the page size, that is, it sits outside the page area. The trim area sits inside the page.

9. When all the pages and marks are added to the plate signature you can view all the plate signatures you have created by selecting the **Plate Set Preview** icon in the Imposition bar.

Pages Pool

Shows the pages available for layout. You can drag-and-drop pages into the plate signature. Pages can be added to the pool manually or by using the Signature wizard.

Marks Pool

Shows all the marks that can be added to the plate signature. You can manually add marks to a page by dragging-and-dropping them into the design window. Also, you can add custom marks to this section by adding EPS files into the `MWF\Imposition\Marks\` folder.

Plate Set Preview

Select this to display the entire press run.

15.2.1.6 Options

If you select the Options tab from the Imposition bar you can display the three Options icons: Main; Folders and Plate design. These provide access to general configuration and default options.

Main options

Click the **Main** icon to display the Main options dialog:

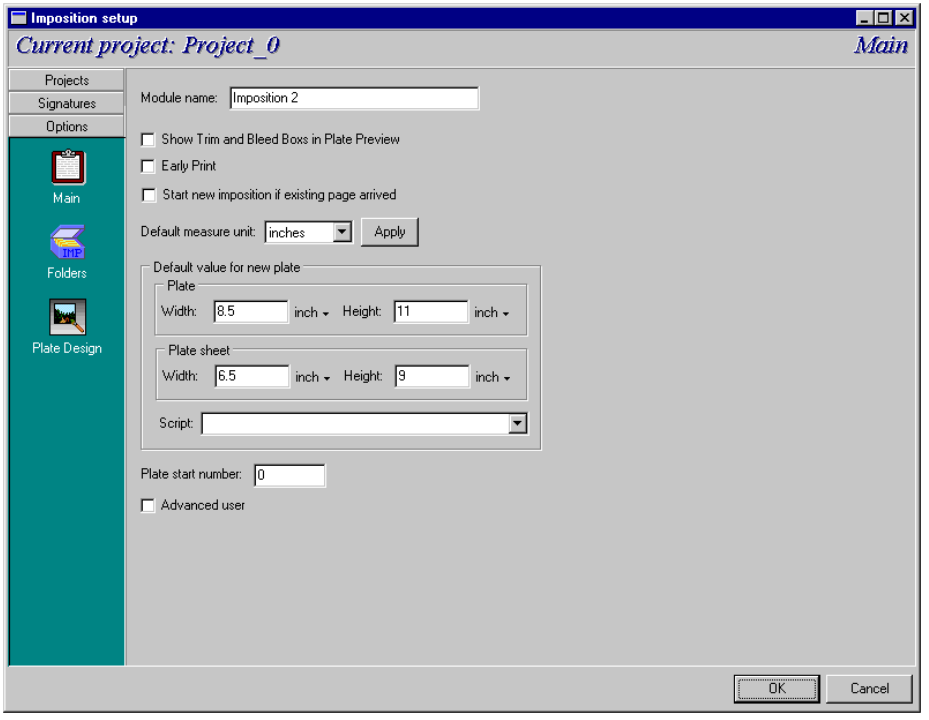


Figure 15.12 Main options dialog

Module name

Allows you to enter a new name for the module. The module name is used wherever the module is referenced: on the workspace; in log files; when linking to and from other modules.

Show trim and bleed boxes in plate preview

Turns trim and bleed boxes on for the plate preview mode.

Early print

Many print runs contain a number of signatures. This option allows completed signatures to be released for printing before the whole print run is complete. With this option unchecked, the whole print run must be complete before printing starts.

This is a useful option for production. On jobs that are complicated or contain numerous signatures, the time savings of being able produce a set of plates for the printing press could be significant.

Start new imposition if existing page arrived

This option allows the Imposition module to compose plate signatures out of order. Instead of waiting for all of 'signature 1' to fill the page slots other signatures can be started. In other words, if your scan module is picking up groups of pages out of order, the module puts them in place as they arrive in the system. Again, this speeds up production by letting you get on with proofing or creating plates and not having to wait for pages to arrive in a certain order.

Default value for new plate

The values in this section are the values that appear whenever a new plate signature is created—the default values. Therefore, you should use the values which most closely represent the most common sizes for your layouts.

Plate width/height

Enter the width and height for the default plate. Plate width and height are the measurements of the piece of aluminum (or polyester) that comes out of the plate output device.

Plate sheet

Enter the width and height for the default plate sheet. Plate sheet width and height represents the size of the piece of paper that goes through the printing press and gets printed on. Imageable area is the area on that sheet of paper that can be printed (affected by things such as non-printing gripper margins, non-printing gutters and folds). Therefore, plate sheet sizes are usually always larger than the imageable area.

Script (manual plate design only)

Select the script most used for your plate signatures.

Plate start number

The Plate start number option lets you choose to start a set of plates for the job with a number other than the default of '0' or the usual '1'. This may be useful if you are only processing certain sections of a book that

will later be collected together to form the whole project. Perhaps you are treating each section as its own distinct job, but for plate archival purposes (for future reprints) you have to keep the plates for the entire book together in numerical order.

Often jobs arrive in sections, sometimes weeks apart. It is not practical to hold everything waiting for all the parts of the job. If the printing press and the bindery can get a head start on some of the book, production schedules can be met much easier. The ability to choose the Plate start number allows better job tracking.

Advanced user

Selecting this option lets you automatically run a script for preview or create the signature script.

Automatically run script for preview

This option allows you to see the instructions and comments as the job is built. It displays you all the settings you have chosen.

Always recreate signature script

Changes the VBS (Visual Basic Scripting) after every change in the module. Any changes you make to the signature layouts are reflected in a new set of instructions.

Folder options

Click the **Folder** icon to display the Folder options dialog.

Imposition directory

This is the directory where all imposition software modules are stored including Marks, Plate Templates, PREPS, Projects and Scripts.

Page storage directory

This is the directory where the PostScript language files, PDF or EPS pages that are going to be imposed are stored while waiting for process.

Output directory

This is the directory where a copy of the imposed plates (before ripping) are stored. You can manually input these plates into another workflow.

Plate Design options

Click the **Plate Design** icon to display the Plate design options dialog.

Show grid

Click this option to display the grid layout on the plate design preview.

Snap to grid

Click this option to snap the pages and marks to the nearest grid when placing objects in the Signature design dialog.

Grid width/height

The values in this option determines the dimensions of the grids.

15.2.2 Imposition Viewer

Select the **View** option from the pop-up menu or double-click the Imposition module to display the Imposition Viewer window.

The status of the Imposition module is displayed:

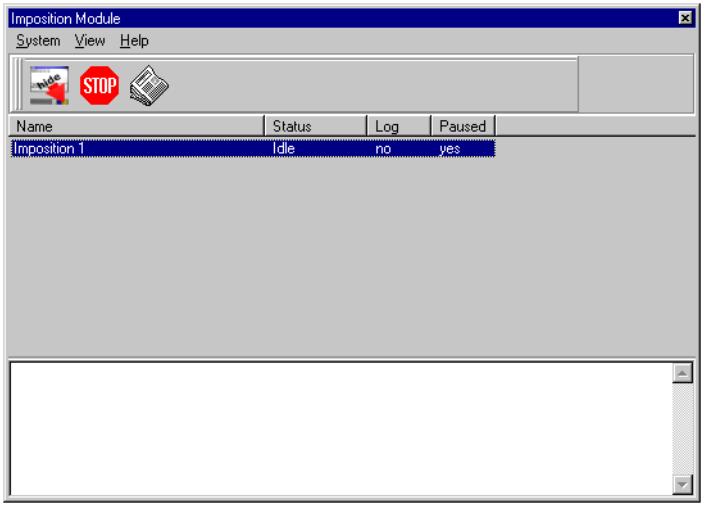


Figure 15.13 Imposition Viewer

For more information on the standard controls displayed in the Viewer see “Monitoring job processing in MWF” on page 17.



Click this icon to display the Imposition Status dialog:

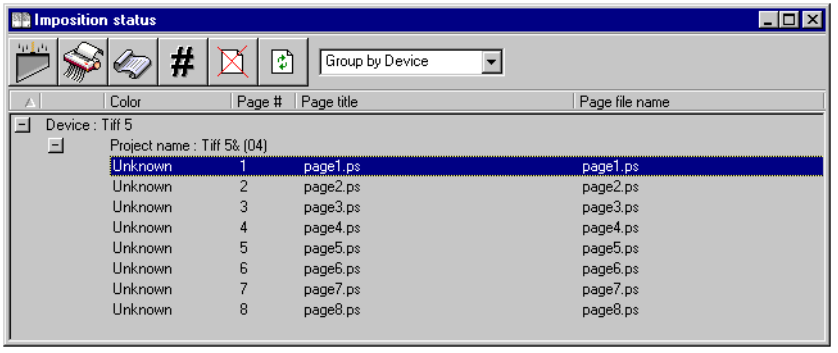


Figure 15.14 Imposition status dialog

You can choose how you view the files in this dialog by selecting an option from the drop-down menu. The options are:

`No group` Select this option to view all the pages to be included in the imposition.

`Group by device` Select this option to group all the pages by the same output device.

`Group by device, color` Select this option to group all the pages by the same output device and color.

The following icons are available for selection:



Force imposition allows you to start the placement of the pages into the signatures manually. This option is necessary when **Early print** in the Options tab is *not* selected, see “Early print” on page 186 for information. The job is held until you tell it to impose.


Select this icon to abort the current imposition.


Select this option to view the current script.


Highlight the page to be changed and click this option to change the page number of the page.


Select this option to remove the currently selected page from the imposition.


Select this option to refresh the Status window. This is often required when new pages are processed.

16

Pairs module



The Pairs module imposes raster files into two-up signature plates ready for output. Once you have created a layout it can be saved to disk and re-called for later use.

To configure the Pairs module, select the module from the toolbar and drag-and-drop it onto the workspace.

16.1 Pairs module workflow

The Pairs module consumes and outputs raster data. Therefore, this module would often be situated after the Harlequin RIP module and direct its output to a selected device.

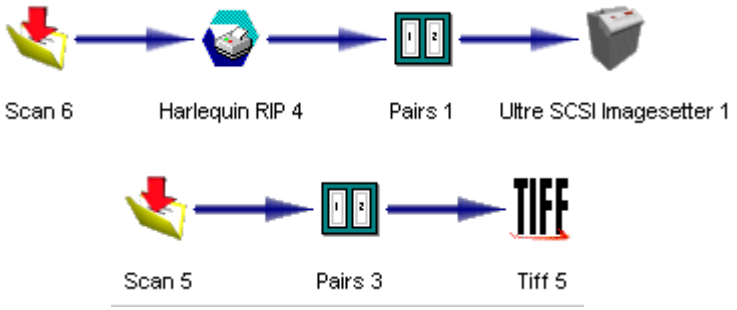


Figure 16.1 Pairs workflows

In addition to this, the Pairs module can act as a standalone spooler consuming previously ripped and trapped TIFF files using a Scan folder to feed the TIFF files into the module for imposition.

16.2 Pairs module controls

Right-click the Pairs module to display the pop-up menu showing the configuration and viewing options:

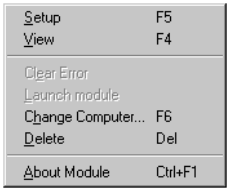


Figure 16.2 Pairs module pop-up

The following controls are available for the Pairs module:

- **Setup**—see "Pairs module setup" below.
- **View**—see "Pairs Module viewer" on page 205.

See "Module shortcut menus" on page 18 for details on the other general options in the pop-up.

16.2.1 Pairs module setup

To configure the Pairs module select **Setup** from the pop-up menu. The Pairs module setup dialog opens.

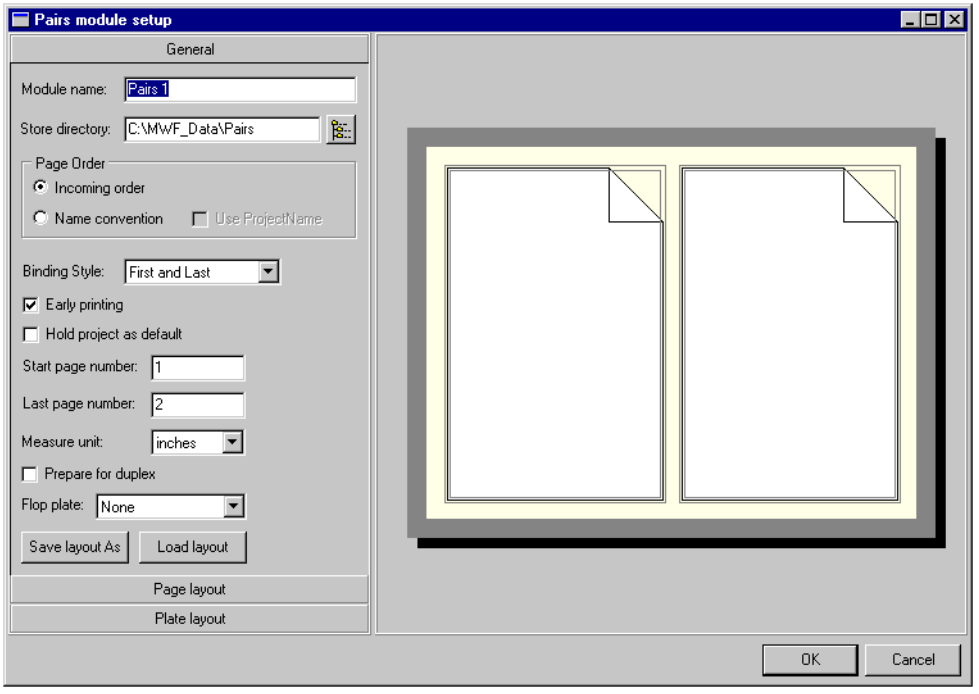


Figure 16.3 Setup dialog box with General tab selected

There are three tabs to this dialog each providing various configuration options which are described in this section:

- General tab.

- Page layout tab.
- Plate layout tab.

16.2.1.1 General tab

The options under this tab provide general configuration options for the Pairs module.

Module name

Allows you to enter a new name for the module. The module name is used wherever the module is referenced: on the workspace; in log files; when linking to and from other modules.

Store directory

This is the directory where the individual pages are stored until their paired partner is available for two-up output.

Either enter a path to the directory in the text box or click the **Select directory** button and browse for the required directory.

Page order

You can use the Page order option to decide how you want the page pairs to be recognized. The following options are available:

Incoming order Pages are paired in the order in which they are received.

Name convention

This option recognizes a particular part of a filename coming into the module and uses this to do the pairing. Generally, this feature is used by the scan folder to extract the page number from the file name and then the Page Pairs module just has the page number to work with when creating the pairs. You must use this feature if you choose the binding style “First and Last”, as described in “Binding style” on page 197.

Use Project name

If you have more than one project in a scan folder at a time, this feature (in conjunction with the Scan module "Name Convention" feature) can keep the projects (jobs) separate from each other. For example, if you have three newspapers to produce, each with 100 pages. The pages may all be named the same (p1, p2, p3) but have some type of code letter in front of the page numbers (A1.ps, B1.ps, C1.ps). With each letter A, B, and C identifying a different newspaper. With the this option selected, the Page Pairs module keeps the projects separate from each other and thus pairs the pages correctly.

The pairer looks for 100 pages with the Project letter "A" and create the pairs. It likewise follows the same procedure for Project B and Project C. This allows you to dump several hundred pages from different projects into a scan folder knowing that the pages will be paired correctly.

Binding style

Binding style refers to the method used to fold a printed piece of paper into a finished newspaper or book. Thus, you choose here which method of page pairing allows the final folded newspaper to have all the pages come out in the right order. Three option are available from the menu:

`First and last`
: The first and last pages that are available in the list of pages are paired. For example, if you have 100 pages, the pairings are: [1&100] [2&99] [3&98] [4&97]. This style is used when saddle-stitching.

`Successive`
: This pairs pages in numerical order [1&2] [3&4] [5&6] [7&8].

`Set` This option allows you to choose whatever combination of pairs you want [1&47] or [1&92] and in what slot [1&47] or [47&1].

Early printing

Select this check box if you would like to print each pair of pages as soon as they are complete. Leaving this check box unselected makes the system wait until the full press run is completed before printing.

Hold project as default

If you select this check box the entire project is held in a queue until you enter the Viewer and manually release the project for printing. See "Pairs Module viewer" on page 205 for more information.

Start page number

In this field enter the number of the page at which you wish to start creating page pairs.

Last page number

You should enter the number of the last page to be included in page pairing.

Measure unit

You can select from various working units for configuring the Pairs module.

Flop plate

This option switches the positions of the pages in a pair automatically based on what you have chosen in this field. There are various options available:

`None` This is the default setting. It places the pages from left to right on the page as they come in. The lower number is always on the left side of the pair, the higher number on the right. [1&96] [2&95] [3&94].

All This places the pages from right to left on the page. The lower number is always on the right side of the pair, the higher number on the left. [96&1] [95&2][94&3]. **All** refers to *all* the plates that are generated. All of the plates have the numbering order from right to left.

Even This option places the pages from right to left on even numbered plates only. In other words, on Plate #1, the pair would be [1&96] while on Plate #2 the pair would be [95&2]. By reversing the order on the even plates, a two-sided job backs itself up correctly when printed—page 2 on the back of page 1 and page 96 on the back of page 95.

Odd This option places the pages from right to left on odd numbered plates only. In other words, on Plate #1, the pair would be [96&1] while on Plate #2 the pair would be [2&95]. It accomplishes the same objective as explained in **Even** above, just in a different way.

Save Layout As

Allows you to save a commonly used set of options in a configuration file so that you do not have to create a new configuration every time you run a similar job. For instance, consider the printer that publishes three different newspapers each day. Each one has its own intricate set of parameters (different paper sizes, different printing presses, different binding styles). By saving the layouts, you can call up the appropriate layout for each newspaper and it sets all the required parameters. You only have to create the configuration once and you can be assured that the paper will come out exactly the same each time, every day of the week, week after week.

The **Save Layout As** option only saves the settings under the General tab.

Load Layout

This option loads a previously saved layout.

16.2.1.2 Page Layout tab

The Page Layout tab provides the options you need to configure the size of the pages to be consumed by the module.

Note: Negative values are not allowed in the text fields of this dialog.

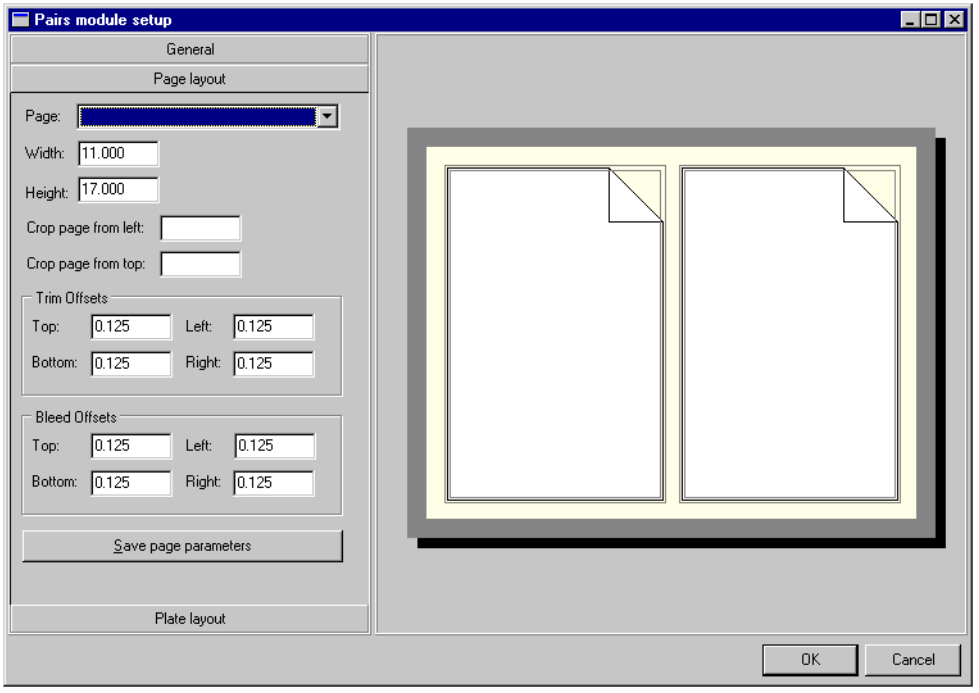


Figure 16.4 Page Layout tab

Page

This option provides you with the option of selecting previously configured pages. The pages are stored by default in a `xPairs.pgp` file in `MWF_Data\Pairs`. You can open this file using a simple text editor and view all the parameters that have been entered for each choice listed in the **Page pull-down** menu. The pages can be deleted by deleting the `xPairs.pgp` file from the directory. See “Save page parameters” on page 201 for more information.

Width/height

This is where you enter the width and height of the pages to be paired.

Crop page from left/top

This option provides you with the option of cropping the incoming pages onto the specified plate layouts.

Trim offsets

This option allows you to specify exactly where the pages are to be cropped. Positive trim offset values are always within the page width and height values specified earlier.

Bleed offsets

This option lets you specify the imageable area of the page. Bleed offsets determine how far outside of the page width and height that the ink is allowed to go past the edge. Some printing processes require more or less ink bleed. It depends on factors such as the selected binding method and the thickness of the paper.

Save page parameters

You can create a file containing values specific to a project, by selecting the **Save page parameters** option and giving it a name. The named file is then available for selection in the **Page** pull-down menu option at the top of this tab.

Take for example the production of a high quality catalog with several distinct sections to it—clothing, home hardware, auto accessories, recreational activities. While you may want to keep the general configuration for the job the same (plate size, press sheet size) it is possible that each section has other special requirements that are noted on this tab (trim and bleed offsets). Under the **Page** pull-down menu, you can store, by name, all the different section specifications and then choose whichever one you need for each section of plates.

16.2.1.3 Plate Layout tab

The Plate Layout tab provides options for configuring the output plate.

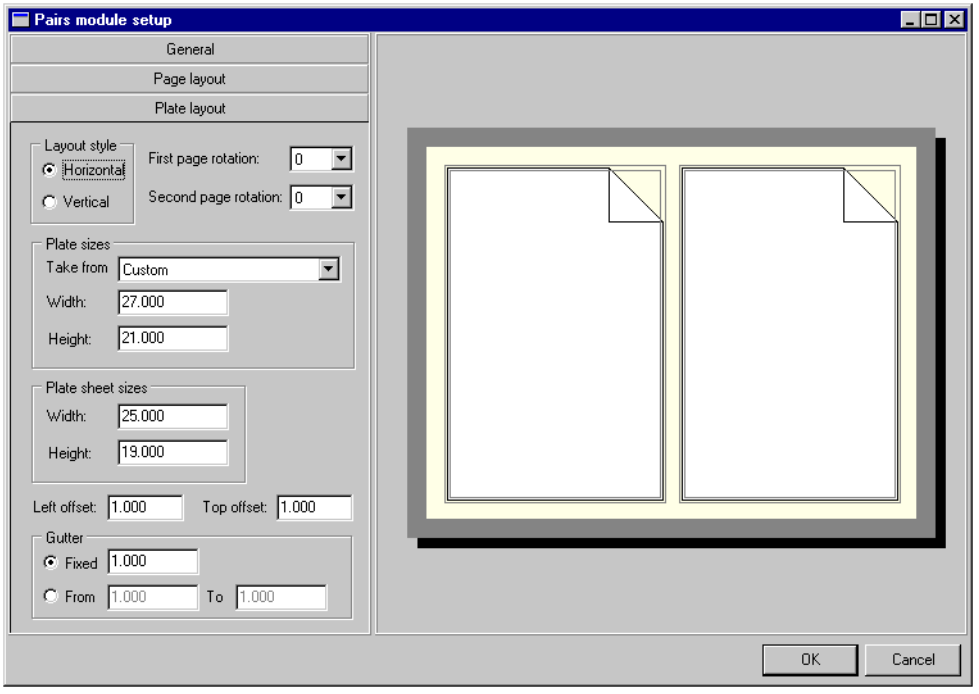


Figure 16.5 Plate layout tab

Layout style

You can use this option to decide if pages are to be displayed side by side (**Horizontal**) or top to bottom (**Vertical**).

First page rotation

Use this option to specify the rotation of the first page of the pair.

Second page rotation

Use this option to specify the rotation of the second page of the pair.

Plate sizes

Plate size is the size of the media, often a piece of aluminum (or polyester), that comes out of the plate output device.

Taken from This option provides you with the option of using the page size specified by the output device in the workflow. From the menu choose the required output device. When selected, the page size specified in the output device appears in the **Width** and **Height** fields.

Width/Height You should use these fields if you want to manually enter the width and height of the plate.

Plate sheet sizes

Sheet size is the size of the piece of paper that goes through the printing press and gets printed on. The plate sheet size is usually larger than the imageable area (which is the available area on that sheet of paper that can be printed—affected by things such as non-printing gripper margins, non-printing gutters and folds).

Width/Height You should enter the width and height of the plate sheet size in these text boxes.

Left/top offset

Enter values in these text boxes to offset the pages from the left (moved to the right) or from the top (move the pages further down on the plate).

Gutter

The gutter is the space between page pairs. You can dictate how much the gutters are creeped (moved) from initial page pairing to final page pairing.

This allows for what is called *page creep*. Page creep is a function employed when printing magazines that are stapled along the spine, otherwise known as saddle stitching.

Saddle stitch is a binding method where each printed form is placed over the top of the previous as if you were “saddling” the form. This is where the binding style `First and Last` is used, see “Binding style” on page 197 for more information. Each pair [1&96] [2&95] [3&94] [4&93] represents the front and back of the magazine. With the resulting forms all together, each one riding as a saddle on top of the others, you finally get a book in correct page order that can be held together with a couple of staples.

If there are enough pages in the magazine and the paper is thick enough, this binding method causes the inside forms (the middle of the magazine) to be pushed outward from the staples. If the inside pages are pushed out far enough, when you cut the magazine down to its final trim size, you may start cutting off words and pictures. To prevent this, a printer folds up the required number and thickness of blank pieces of paper as a "mock up" and staples it together. Then, with the magazine closed, he measures the thickness of the stapled edge, from the outside cover to the middle pages. This defines how far the middle pages of the magazine need to be moved so that when the magazine is cut down, all the pages come out looking perfect, with nothing important cutting off or getting too close to the edges.

The settings **from** and **to** in the Gutter section take care of this.

Fixed This is a fixed size for the gutter.

From Enter a value that specifies how close the printed image needs to be to the stapled edge on the *very outside* of the magazine.

To Enter a value that specifies how close the printed image in the *middle* of the magazine needs to be to the stapled edge.

The Page pairs module gradually creeps (moves) the pages in between the outside and the middle so that the magazine ends up smooth and uniform, each page being moved a fraction of the total distance.

16.2.2 Pairs Module viewer

Select the **View** option from the pop-up menu or double-click the Pairs module to display the Page Pairs Viewer window.

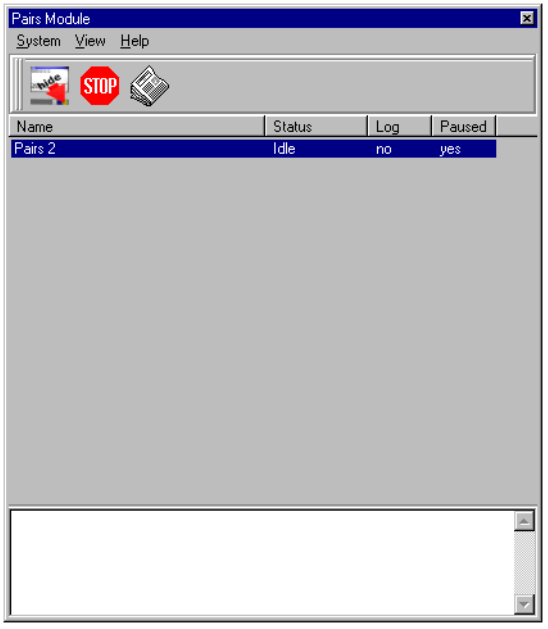


Figure 16.6 Page Pairs Viewer

For more information on the standard controls displayed in the Viewer, see "Monitoring job processing in MWF" on page 17.



Click this icon to display the Pairs status window. This is the same as selecting **Status** from the View menu.

16.2.2.1 Pairs status window

The Pairs status window displays information about the pages being processed by the module. The window shown below is not how it appears when first opened.

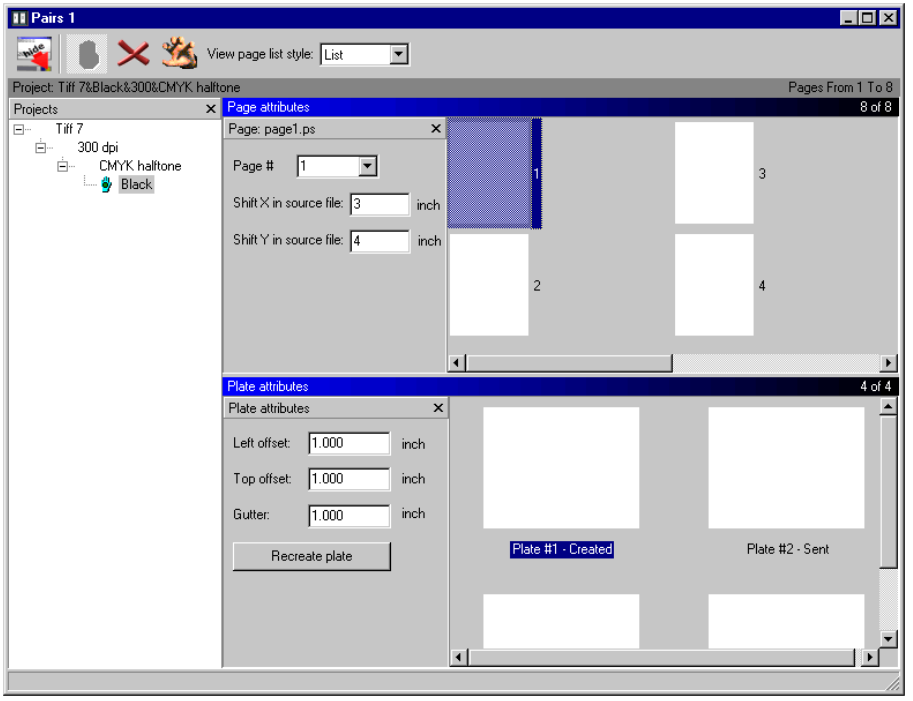


Figure 16.7 Pairs status window (not default)

When pages are running through the Pairs module, the output device appears in the window on the left of the module. Click the plus (+) signs to show the next level. Keep selecting until the individual pages (or separations) are displayed.

When a page is selected it appears in the top-right of the window (Page attributes window) together with its pair (if created) in the lower-right of the window (Plate attributes window).

By selecting the down-arrow to the right of the Page Attributes option in either the Page attributes or Plate attributes window, you display the Page or Plate attributes dialog. The dialog can be pinned to the desktop by selecting the pin icon.

The attributes dialog displays information about the selected page or plate.

If you decide, when viewing the plate setups, that pages are not being positioned correctly, you can change the Left offset, Top offset and Gutter values in the Plate Attributes dialog. To apply any changes you must select the **Recreate plate** button.

The Pairs status window provides the following controls:


Select a page or plate then select the hold icon to hold the page in a queue.


Select a held page or plate then select the release icon to allow the page to continue processing.


Select a page or a plate and select the delete icon to remove it.

17

Preps



The Preps Automation Server is an imposition module for MWF. You can use Preps to create production output on various types of device such as image-setters, platesetters and digital presses.

Preps can handle any imposition layout from saddle stitched and perfect bound jobs to more complex magazine layouts with pull-out sections.

Jobs are flowed from source files into the imposition layout in the correct order required by the selected binding style.

17.1 Installation

To make use of the MWF Preps module you must purchase a full version of Preps from ScenicSoft. (E-mail info@scenicsoft.com.)

A number of points should be noted:

- Preps from ScenicSoft must be installed on the same machine as MWF for the Preps module to perform its functions.
- When you receive your version of Preps from ScenicSoft you must insert the dongle supplied with Preps into the dongle supplied with MWF and plug them into the machine running the applications.

- It is better to install Preps before MWF is installed. MWF rewrites or appends some printer files found in the Preps program directory. If these are not rewritten (which happens if Preps is installed after MWF), there will be undesirable results in the final imposition files (clipped signatures, errors such as `Cannot read the Preps log file`).
- If Preps from ScenicSoft is already being used, you will need to re-install it to activate the **Automation** option. Before reinstalling Preps, you should copy the templates folder to another (safe) location. This will save all your custom templates. Reinstallation of Preps for additional features (such as Automation) will rewrite the templates folder and subsequently all templates designed up to that time will be lost. When Preps is installed, copy the templates folder back into the new Preps directory. Be careful to put the templates folder back into the right subdirectory so that Preps can find the templates during imposition.
- When you install Preps you must activate the **Automation** option. This can be done during the initial installation of Preps or later after Preps has already been installed.

Use the following procedure to activate the **Automation** option within Preps.

1. Double-click `setup.exe`.
2. Click **Next** or **Yes** until the options for `Standard install` and `Custom install` are displayed.
3. Click **Custom Install** followed by **Next**.
4. If you have already installed Preps check the `Automation` option and uncheck any other options. If Preps is not already installed check the `Automation` option and leave all other options unselected.
5. Now continue the installation as normal.

Note: MWF supplies the necessary dongle and Sentinel drivers.

When the Preps icon is added to the MWF desktop, the Preps Automatic Server will automatically be started. This is indicated by the ScenicSoft splash screen briefly appearing. You should note however that the stand-alone Preps program is not started. If you wish to create templates for example, you must start-up the stand-alone version of Preps.

Another indication that the Preps module (and its Automation) has started up properly is the presence of a yellow folder icon in the system tray (situated in the lower right corner of the desktop). Do not confuse the Preps icon with the SmartScan yellow folder that has a red arrow pointing into it.

17.2 Preps workflow

Preps accepts source files as PostScript language files, EPS, DCS, and TIFF.

For Preps to process PostScript language source files those files must comply with Adobe's Document Structuring Conventions (DSC). DSC comments provides color, font, structure and image information.

Preps accepts EPS and DSC files that are pre-separated.

The module is typically placed in the workflow before the Harlequin RIP module:



Figure 17.1 Preps module workflow

It is useful to place the Optimizer module before the Preps module to ensure that the PostScript language data is correct before processing.

The Optimizer also provides the option of splitting multi-page documents into single pages. Currently, the Preps module does not accept or process multi-page documents. Therefore, it is useful to place either an Optimizer or Page Splitter module before the Preps module, or a preliminary workflow (before Preps) in which the multi-page file is processed through the Harlequin RIP. Either of these options will split any multi-page documents into single pages that the Preps module can understand.

17.3 Preps controls

Right-click the Preps module to display the pop-up menu showing the configuration and viewing options:

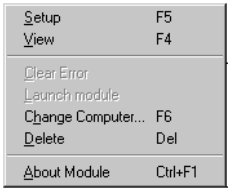


Figure 17.2 Preps pop-up

The following controls are available for the Preps module:

- **Setup**—see "Preps setup" below.
- **View**—see "Preps Viewer" on page 246.

17.4 Preps setup

To setup the Preps module right-click the Preps icon and select **Setup** from the pop-up menu.

There are two methods of using Preps within MWF: automatic and manual composition. Manual setup requires that the pages for imposition are made available to the module. Automatic setup allows the module to be configured before the pages are available.



You can change between Manual and Automatic mode by clicking the hand icon. All icons in this module will display tooltips when the cursor is upon them.

The current mode is displayed in the Setup window title bar.

Note: Although you can switch between Manual and Automatic modes, any files left over from the previous mode should be discarded (Preps will display a prompt asking if you want to delete those files). Failure to delete files in Available Pages List will cause errors in the resulting imposition. It may also lead to all subsequent pages entering the module being flushed (deleted at the time of each imposition).

A number of options are available from the drop-down menus in both Automatic and Manual mode.

17.4.1 Manual composition

Before creating a Preps job you must know the location of the source files and image files required for the job.

The following stages are required when using the Preps imposition module:

- Create a new Preps job
- Add source files to the file list
- Create the run list for the job
- Impose the job using a template
- Impose the job

17.4.1.1 Create a new Preps job

To create a new Preps job right-click the Preps icon and select **Setup** from the pop-up menu.

A dialog containing three windows will appear. The windows are entitled; File List, Run List and Signature List.

You create a Preps job by:

1. Selecting a job (mixed file or not) to be output as a PostScript language file.
2. Adding source files to the File List. (You can add files directly to the Run List which will automatically add them to the File List.)
3. Adding pages in the source file to the Run List, (if not already done in the previous step).
4. Applying a template to flow the already selected pages into signatures.

Add source files to the File List and create the Run list

To add files to the File List they must first be available to the Preps module. Therefore, setup a SmartScan module with a drop folder into which you should place the files to be imposed.

When the files have been passed to the Preps module use one of the following options to add files:

- Click the **Add files** icon.
- Right-click with the cursor in the File List and select **Add Pages.**
- Select **Add Pages** from the Job drop-down menu.

The Available files dialog will appear. Within this dialog are all the files available to Preps for imposition.

To add files to the File List they must be marked. Files are identified as marked when a tick appears in the box at the left side of the window, in the # column.

There are several ways of selecting and marking files.

- Select the files in the list to be added to the File List. You can use the Shift-click option to select a range of files.
- You can click the check box in the # column to mark the files.
- Alternatively, with the files selected, right-click to display a pop-up menu. This menu has several options:

`Mark Selected`
will mark all the selected files.

`Uncheck all not used`
will uncheck any file in the list which is not used.

`Mark above` will mark the selected file and all files above the currently selected file.

`Mark below` will mark the selected file all files below the currently selected file.

Mark if... allows a text variable to be used to mark files. On selection a Mark condition dialog appears allowing a condition to be configured.

The options are:

begins with will mark all files that begin with the selected condition.

ends with will mark all files that end with the selected condition.

contains will mark all files that contain the selected condition.

For example, to mark all files that contain the word 'page' select the **contains** condition and enter the word 'page' in the text box. When **OK** is clicked all files in the list containing the word 'page' will be marked.

Click the **Add selected pages to the run list** option to automatically add all selected pages to the Run List as well as the File List. Uncheck this option if you want to manually add pages to the Run List.

If pages have been submitted to the Preps module out of order (for instance, one at a time as they are finished by the design department), you may want to manually add pages to the Run List. In this case, the **Add selected pages to the run list** option should be unchecked. Otherwise, Preps will flow the pages into the Run List in the order they are received and the imposition will be wrong.

For instance, if you have a 16-page template and you submit 16 pages to the module but not in the order of 1 through 16, Preps is not aware of the page number (in Manual mode). It will place the first page received in the #1 slot, regardless of the true page number. So, if the pages do not show up in the Available Files window in the exact order they need to be, make sure this option is unchecked or you will find yourself having to rearrange the entire Run List page by page.

When files are marked, select the **Add files to list** button to add the files to the File List.

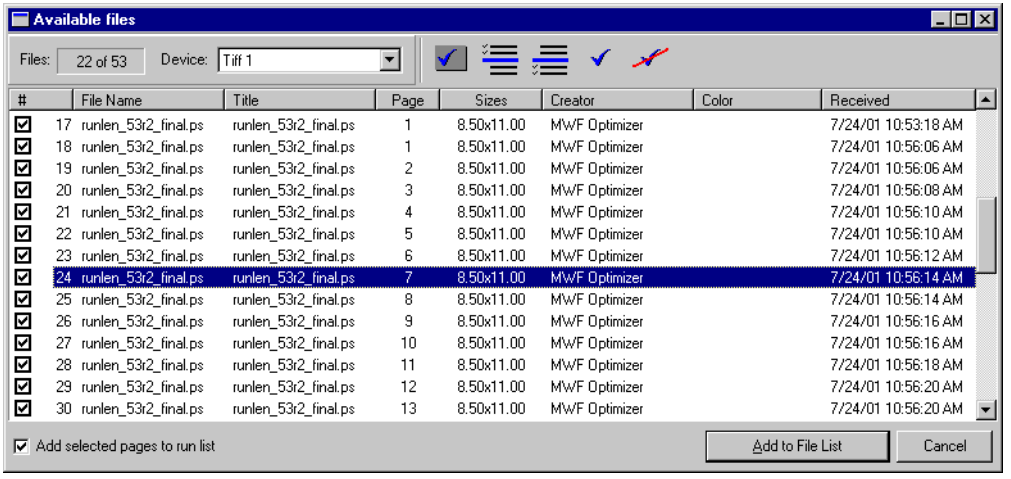

Available files
Files: 22 of 53
Device: Tiff 1
File Name Title Page Sizes Creator Color Received
17 runlen_53r2_final.ps runlen_53r2_final.ps 1 8.50x11.00 MWF Optimizer 7/24/01 10:53:18 AM
18 runlen_53r2_final.ps runlen_53r2_final.ps 1 8.50x11.00 MWF Optimizer 7/24/01 10:56:06 AM
19 runlen_53r2_final.ps runlen_53r2_final.ps 2 8.50x11.00 MWF Optimizer 7/24/01 10:56:06 AM
20 runlen_53r2_final.ps runlen_53r2_final.ps 3 8.50x11.00 MWF Optimizer 7/24/01 10:56:08 AM
21 runlen_53r2_final.ps runlen_53r2_final.ps 4 8.50x11.00 MWF Optimizer 7/24/01 10:56:10 AM
22 runlen_53r2_final.ps runlen_53r2_final.ps 5 8.50x11.00 MWF Optimizer 7/24/01 10:56:10 AM
23 runlen_53r2_final.ps runlen_53r2_final.ps 6 8.50x11.00 MWF Optimizer 7/24/01 10:56:12 AM
24 runlen_53r2_final.ps runlen_53r2_final.ps 7 8.50x11.00 MWF Optimizer 7/24/01 10:56:14 AM
25 runlen_53r2_final.ps runlen_53r2_final.ps 8 8.50x11.00 MWF Optimizer 7/24/01 10:56:14 AM
26 runlen_53r2_final.ps runlen_53r2_final.ps 9 8.50x11.00 MWF Optimizer 7/24/01 10:56:16 AM
27 runlen_53r2_final.ps runlen_53r2_final.ps 10 8.50x11.00 MWF Optimizer 7/24/01 10:56:16 AM
28 runlen_53r2_final.ps runlen_53r2_final.ps 11 8.50x11.00 MWF Optimizer 7/24/01 10:56:18 AM
29 runlen_53r2_final.ps runlen_53r2_final.ps 12 8.50x11.00 MWF Optimizer 7/24/01 10:56:20 AM
30 runlen_53r2_final.ps runlen_53r2_final.ps 13 8.50x11.00 MWF Optimizer 7/24/01 10:56:20 AM
Add selected pages to run list
Add to File List
Cancel

Figure 17.3 The Available files list with pages marked

To remove files from the File List, highlight the files to be removed and either press the **Delete** key or select **Delete** from the right-click pop-up menu.

In the top left corner of the dialog the number of files selected appears. In this example 22 files are selected from a total available of 53 files.

Files deleted from the File List remain within the Available files list.

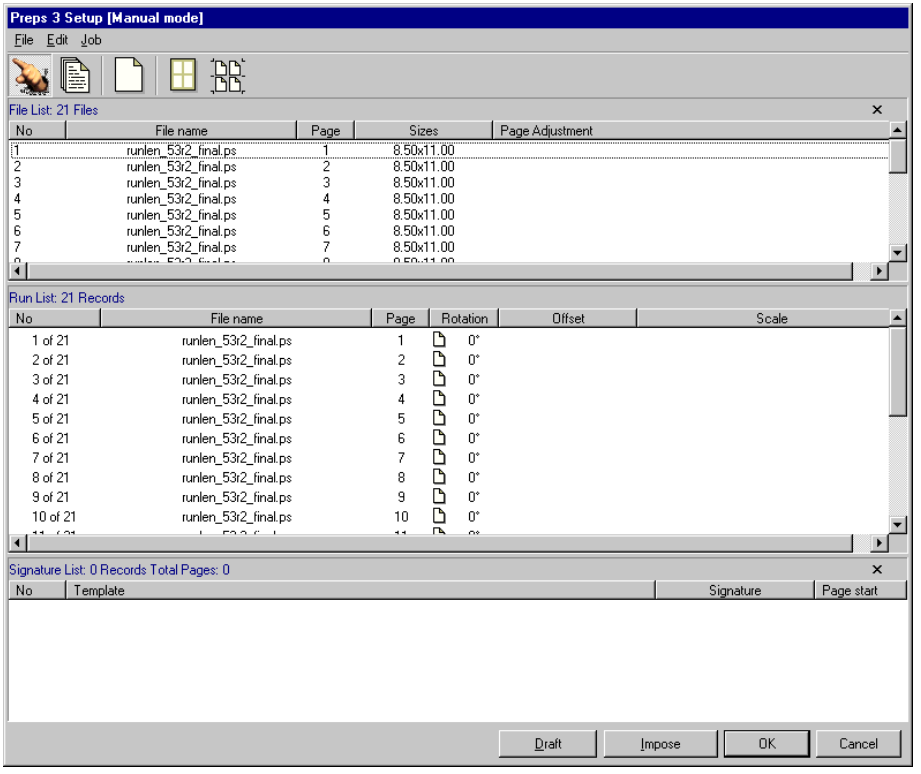


Figure 17.4 Manual mode with files

The position of a page within the Run List determines the order in which it is imposed in the job. Files in the Run List can be rearranged by dragging and dropping the pages into a new position. You are able to sort pages by number by clicking the Page column title. Similarly, you can sort each column by clicking the column title.

Blank pages

With the Preps module you are able to add blank pages to your Run List.

By adding blank pages to the Run List you can force a chapter to start on a right-hand page This is helpful, especially if you find that you have been supplied PostScript language files where blank pages were not allowed to be

output (like those generated by QuarkXpress). Another example would be a catalog that needs blank pages interspersed throughout for sections to flow correctly.

To add a blank page into a job use one of the following methods:

- Right-click in the Run List and select **Insert blank page** from the pop-up menu.
- Drag and drop the Blank page icon into the Run List.

The position of the blank page within the Run List can be changed by dragging and dropping the page.

17.4.1.2 Preview the job—thumbnail proof

Printing a thumbnail layout lets you proof the job to verify that the incoming PostScript language files are correct and are imaged correctly when you print the final output. It does not proof the imposition, it only provides confirmation that the PostScript language files are able to be processed by the Preps module. When creating a thumbnail layout, you specify how many pages you want to print horizontally and vertically—thus reducing (scaling) the pages until they fit onto the specified page size. The pages print in rows from left to right, in the order in which they appear in the source files.

To create thumbnail layouts:

1. Use one of the following options:
   - Point at the Signature List and select **Thumbnail layout** from the right-click pop-up menu.
   - Click the **Thumbnail layout** icon from the top of the dialog.

   The Thumbnail Layout dialog will appear.
2. In the **Horizontal** text box, enter the number of pages you want to print horizontally on the media sheet. Similarly, in the **Vertical** text box enter the number of pages you would like to print vertically on the sheet.
3. Click **OK**.

4. When the thumbnails have been configured, highlight the thumbnail layout line in the Signature List, and click the **Draft** button. The files will be processed through the RIP and sent to the output device.

Thumbnail layouts are most often printed on a designated proofing printer.

Notice that the number of Thumbnail layouts corresponds to the number of pages displayed in the File List.

Note: An alternative, and perhaps more efficient way of checking PostScript language files (especially when submitting multi-page files that need splitting into single pages), is to place an Optimizer module before the Preps module. The Optimizer must have the **One output file per page** option checked. For more information see Chapter 20, "Optimizer".

If individual PostScript language files are processed by the Optimizer, you are assured that the pages will impose.

17.4.1.3 Impose the job

You impose a job by selecting a template and then flowing job pages into that template. A number of commonly used layouts for different binding styles are provided with the Preps module.

If a template which suits your needs is already provided you are able to select and use that template.

To create a custom template you must use the full version of Preps. Refer to *Chapter 19* of the *ScenicSoft Preps PRO PLUS User Guide* for more information.

An automatic selection feature is provided. In this mode, Preps will select the largest full signature in the template that can accommodate the number of pages in the job. The job pages are flowed through that signature as many times as required. Then Preps flows the remaining pages through any partial signature configured within the template. If no partial signature exists within the template, the remaining job pages are flowed through the full signature using blank pages where necessary.

1. Choose a template using one of the following options:
   - Click the **Signature setup** icon at the top of the Page setup dialog.
   - Right-click the Signature List and select **Signature selection** from the pop-up menu.

The Signature selection dialog will appear.

2. Select the drop-down menu in the Binding style option and choose the required binding style. For more information see "Binding styles" on page 221.

   A Template folder will appear in the window below.

3. Select the **+** icon until you can view the various options.
4. Click on the required template for the job.
5. Click **Auto Select** to impose the entire job. This will automatically selected the required signatures within the template.

   Note: Auto Select will only be available for use if it has been designed into the signature template. It is a special feature that you must activate when designing a new template in Preps.

   Alternatively, click **Add** to impose each signature individually. When using the **Add** option you must make sure you have selected the right number of signatures to accommodate all the pages. Therefore, you may have to click **Add** more than once.

You can change the position of the selected signature in relation to the page number of the job by clicking the signature in the Signature selection dialog box, then clicking **Move up**, **Move down** or **Renumber**.

You can also change the start page number of a signature by double-clicking it and changing the **First Page Number** text box. Make sure you also check the **Locked** option so that the numbering takes affect.

6. If required, you are able to edit the layout details of a complete template or individual page signature. For more details see "Adjusting page positions" on page 222.
7. When the Signature list is completed click **OK**.
8. Click **Impose** to impose the job.

Binding styles

A number of binding styles are provided in the Preps module:

- Flatwork (no binding)

  This option should be chosen for non-folded signature templates, that is, jobs which are not bound together such as poster work, step-and-repeat work, business cards and so on.

  With this binding style you are able to combine different page sizes and orientations on a press sheet for gang-up jobs. In addition to this you are able to step-and-repeat pages, overlap them and nest them for media saving purposes, and for double burns (where one image is overlaid by another).

  When a job is imposed with a flatwork binding style, Preps flows the pages into the signature by matching the number of the Run List with the number of the template page. If a template page number appears twice in a signature, the corresponding Run List page is imposed twice.

- Perfect bound

  Perfect binding is used for books and some magazines. When using a perfect binding style, Preps flows the Run List pages through the signature in the order in which they appear in the Run List. When using the **Auto select** option, Preps uses the largest signature available for automatic selection, based on the number of pages in the Run List. To manually choose which page signature is applied to which pages use the **Add** option.

- Saddle-stitched

  The Saddle-stitched option is generally used for booklets, catalogs, and programs—as long as the number of pages is not too many.

  With saddle-stitching sheets are folded and placed one inside the other. When this is done the inner pages of the booklet will protrude beyond the edge of the outer pages. Therefore, the edge will often be trimmed to size. The Preps module flows an equal number of pages from the beginning and end of the Run List through the largest signature in the template available for automatic selection. If there are not enough pages to complete another full signature, Preps flows the remaining pages through the signature within the template that most closely matches the

remaining number of pages. If there are not enough pages to fill the selected signature, blank pages are automatically added to the end of the Run List. Alternatively, you can manually select signatures using the **Add** option.

- Come n'Go

  Use the Come-and-go binding style to produce two perfect bound books bound together with a common edge that will subsequently be cut. With this binding style Preps takes an equal number of pages from the start and end of the Run List to fill the largest signature in the template. If required you may apply the signatures manually using the **Add** option.

  Note: The Come-and-go binding style cannot be used with a multiple selection template.

- Cut and Stack

  The Cut and stack binding style is used when different parts of a job are printed at the same time. An example of this would be when the first half of the Run List is imposed on one side of a press sheet and the second half on the other. After this the sheet is cut and one side is stacked against the other to form a complete book.

17.4.1.4 Adjusting page positions

Because the applications creating source files do so in many and various ways, pages may be inconsistently or incorrectly positioned within your Preps job. Therefore, within Preps you are able to fine tune the position of pages in the following ways:

- Selecting pages or signatures
- Applying offsets to source files, Run List pages, templates or signatures
- Rotating Run List pages
- Working with bounding boxes
- Scaling pages, templates or signatures
- Adding creep to templates or signatures

Selecting pages and signatures

When applying offsets, rotation or other configurations to pages or signatures, a simple method of selecting the various types of page is provided with the Select Page/Signature Range option.

For example, you may receive a series of 300 PostScript language files which are rotated incorrectly for final output. You may need to rotate all even pages by 90 degrees. With 300 pages in the Run List the **Select Page Range** option allows you to select all even pages in one go rather than having to individually select the 150 even-numbered pages. With all the even pages selected you can then right-click and select the required rotate option. (The Edit right-click command allows page position adjustment and page scaling in the imposition slots.)

To use the **Select Page/Signature Range** option:

1. Right-click in either the File, Run or Signature List.
2. Click the **Select Page/Signature Range** option from the pop-up menu. The following dialog will appear:

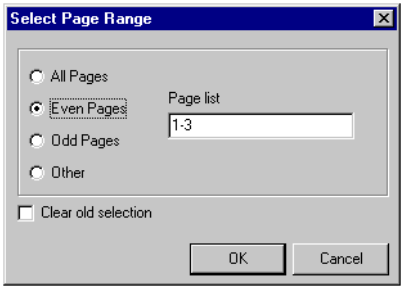


Figure 17.5 Select Page Range dialog

3. Click the required range (All pages, Odd pages and so on) and if required, enter the range of pages to be selected.
4. Click **OK**.

Note: If you decide to make further selections using the Select Page/Signature Range dialog, you can remove previous selections by clicking the **Clear old selection** option. If you leave the **Clear old** selection option unchecked your new selection range will be added to any previously selected pages or signatures.

For example, if you applied rotation to the even pages in the Run List and then you decide you need to now apply rotation to the odd pages in the Run List, you should clear the old selection or your rotation will be added again to the even pages when it is added to the odd pages.

Applying offsets to source files

You are able to apply offsets to source files one at a time. Different offsets can be applied to different source files in the same job. You should apply offsets to source files when even and odd pages in your job need different offsets or when the offsets required vary from source file to source file. If you want to apply different offsets to individual pages within a job you can apply them in the Run List.

To apply offsets to source files:

1. In the File List either, double-click the file to be edited, or select a range of pages, right-click and select **Edit** from the pop-up menu. The following Page Position Adjustment dialog will appear:

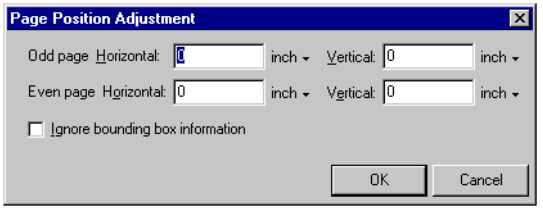


Figure 17.6 Page Position Adjustment dialog

2. Enter horizontal and vertical offset amounts (as required) for both odd and even pages.
3. If you want the Preps module to ignore the bounding box in the source file click the **Ignore bounding box information** option. Every page in a source file has a bounding box that provides the Preps module with trim

information relative to the position of the image on the page. Ignoring the bounding box information allows Preps to measure from a fixed point (the 0, 0 position as defined in the PostScript language). This together with any applicable offset allows for correct positioning of pages.

4. Click **OK**.

Applying offsets and rotation to Run List pages

You are able to apply offsets and rotation to Run List pages. You can select single or multiple pages up to the entire Run List. You should apply offsets in the Run List when you want to apply an offset to selected pages within a job.

In addition to this, you are able to apply rotation, in increments of 90 degrees, to one or more pages within the Run List.

Preps applies all page settings based on the (PostScript language) origin point of the file (0, 0) which is always in the lower left corner of a page, when the page is right reading in normal orientation.

To apply Run List offsets:

1. In the Run List window select one or more pages (using click, shift-click, control-click or the Page Range option).
2. Double-click or right-click and select **Edit** from the pop-up menu. The following Modify Run List Page dialog will appear:

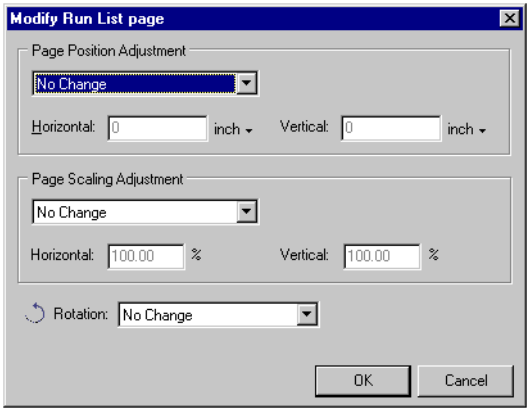


Figure 17.7 Modify Run List Page dialog

3. In the Page Position Adjustment section select an option from the menu and enter Horizontal and Vertical values:

   `No Change` This will not change the current position.

   `Set To` This will set the position to the values in the **Horizontal** and **Vertical** text boxes.

   `Change By` This will add the values in the **Horizontal** and **Vertical** text boxes to the existing value.

4. In the Page Scaling Adjustment section select an option from the menu and enter Horizontal and Vertical values.

   `No Change` This will not change the current scaling.

   `Set To` This will set the scaling to the values in the **Horizontal** and **Vertical** text boxes.

   `Change By` This will add the scaling in the **Horizontal** and **Vertical** text boxes to the existing scaling value.

5. In the Rotation section select the required option from the menu.
6. Click **OK**.

Layout details

When required, you are able to apply Page Position Adjustment, Shingling (creep), Scaling and Bleed margins to an entire template or to individual page signatures.

Changes made in the Layout Details dialog affect the entire job. If you make adjustments to one signature in the Signature Selection dialog you will notice that upon selecting another signature and choosing Layout Details those values have also been entered for the second signature (and every other signature that currently appears in the lower portion of the dialog). In other words, values entered into the Layout Details dialog have a global effect on every signature listed.

1. Display the Signature selection dialog by right-clicking the Setup dialog and clicking **Signature selection** in the pop-up menu.
2. Now either select a template in the upper window or a page signature in the lower window followed by clicking the **Layout Details** button. The Layout Details dialog will appear:

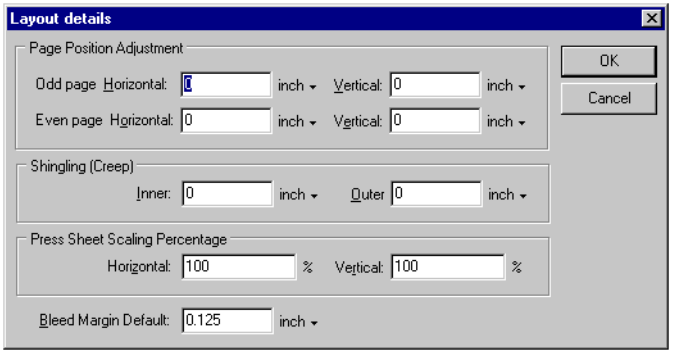

Layout details
Page Position Adjustment
Odd page Horizontal: 0 inch Vertical: 0 inch
Even page Horizontal: 0 inch Vertical: 0 inch
OK
Cancel
Shingling (Creep)
Inner: 0 inch Outer 0 inch
Press Sheet Scaling Percentage
Horizontal: 100 % Vertical: 100 %
Bleed Margin Default: 0.125 inch

Figure 17.8 Layout Details dialog

3. Enter horizontal and vertical offset amounts (as required) for both odd and even pages.
4. In the Shingling (Creep) section enter in the **Inner** text box the amount you want to move the image area of the inside pages of the signature (on a 16-page signature, the inside pages would be pages 8 and 9). A positive amount in this box moves the pages toward the binding. In the **Outer** text box, enter the amount you want to move the image area of the outside pages of the signature (pages 1 and 16). A positive amount in this box moves the pages toward the binding.

   Based on the values entered, Preps calculates the distance to move the image area on all pages between the inner and outer pages with reference to the number of pages and selected binding style.
5. In the Press Sheet Scaling section you are able to enter a value that scales the output. This is useful when compensating for differences in flexo printing presses. Generally, the Horizontal and Vertical scaling percentages would be the same.

6. Bleed margins restrict the area within which bleeds are printed around the trim size of a page. Bleeds are defined in the source files—Preps will not add bleeds. However, Preps allows a default of 0.125 in for the bleeds set in the source file. This value may be changed.

   Preps will only add bleed if it is already present in the incoming PostScript language file. The bleed margin adjustment in Preps is helpful if a large bleed has been set in the page layout application (perhaps for multiple printing processes that require different bleed setups). Preps allows you to control how much of that bleed is used in each page slot.

7. When the values have been completed click **OK**.

17.4.2 Automatic composition

Automatic mode requires you to enter in all setup information before the module will work. You cannot start submitting pages into the module without the File List, Run List and Signature List completed

Use the following procedure for automatic composition:

1. Click the Hand icon to change the Preps module to Automatic mode.
2. Either right-click on the File List window and click **Add pages** from the pop-up menu or click the **Add pages** icon. The following dialog appears:

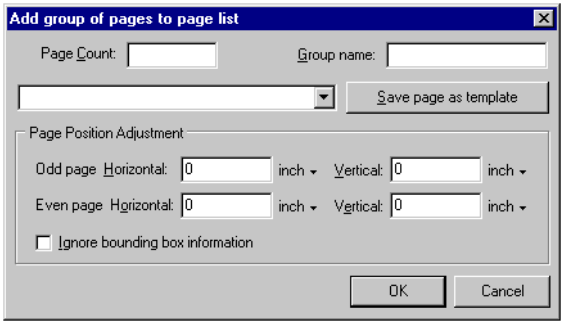


Figure 17.9 The Add group of pages to page list dialog

3. The number entered into the **Page count** field determines how many pages the module will look for before it does a single imposition. For example, if you enter a small number (like 16 pages for one signature's

worth for perfect-bound projects) and feed hundreds of pages to the module, the Preps module will automatically do an imposition for every 16 pages that come in.

Likewise, you can enter in a large number of pages (necessary for Saddle-stitch projects). The module will wait until all the pages appear before it starts its first imposition.

Consequently, you must know how the final project will be processed at this stage.

The **Page position adjustment** options are exactly the same for the manual mode of operation. See "Adjusting page positions" on page 222.

The **Save Page as Template** option allows you to save current configurations so that they become available for use in the drop-down menu.

It saves all the information that you have entered including group name, page position, rotation and so on. Subsequently, you can recall and configure new impositions by choosing the different page templates you need in the setup.

When the dialog is completed click **OK**. The Run List will fill up automatically.

You should not be concerned if the module does not put the pages in the correct Run position (as in Manual mode). What appears in the Run List is a listing of placeholders, not the actual PostScript pages.

The pages are placed in the imposition slots based on the selections made in the **Edit > Options** window. There is a section specifying Incoming Page Numeration. For Preps to generate the proper imposition slots for each page, the Name Convention option must be selected. This requires the setting of a name convention on submitted files, either through the SmartScan folder filtering the file name down to a page number or by letting the Optimizer module split a multi-page document and add a specific page number to the name of each page. See "Preps setup options" on page 233 for more information.

4. Choose a template using one of the following options:
   - Click the Signature setup icon at the top of the Page setup dialog.
   - Right-click the Signature List and select **Signature selection** from the pop-up menu.

The Signature selection dialog will appear.

5. Select the drop-down menu in the Binding style option and choose the required binding style. For more information see "Binding styles" on page 221.

   A Template folder will appear in the window below.

6. Select the **+** icon until you can view the various options.
7. Click on the required template for the job.
8. Click **Auto Select** to impose the entire job. This will automatically select the required signatures within the template.

   Note: Auto Select will only be available for use if it has been designed into the signature template. It is a special feature that you must activate when designing a new template in Preps.

   Alternatively, you can choose to add signatures one at a time.

9. Now start submitting files, via a Scan module, and the imposition should start automatically.

Options to adjust page and signature positions are exactly the same for the manual mode of operation. See "Adjusting page positions" on page 222.

17.4.3 Preps menus

17.4.3.1 File menu

The options in the File menu allow you to save a Preps job as a template (`.pjt` file):

New Job Select this option to start a new job.

Open Job Template

This option allows you to open a previously saved job template (`.pjt` file).

Save Job as Job Template

This option allows you to save the current job as a job template (`.pjt` file).

Save Job Template As

This option allows you to save a previously saved job template (`.pjt` file) under a new name.

Exit Setup

Select this option to quit the Preps setup.

17.4.3.2 Edit menu

Undo Use Undo to undo any delete option. This option will only undo the last command performed—it does not allow you to undo more than a single command.

Delete Use this option to remove pages from the File or Run List or signatures from the Signature List.

Select All Use this option to select all pages in the File or Run List or all signatures in the Signature List.

Select Page Range

This option provides access to various page and signature selection features. See “Selecting pages and signatures” on page 223.

Options Provides access to various user preferences. See “Preps setup options” on page 233.

17.4.3.3 Job menu



Add pages

This option is the same as clicking the Add file to files list icon, see “Add source files to the File List and create the Run list” on page 214 for more information.

Job information

This option displays the Job information dialog for more information see “Job Information” on page 244.



Thumbnail layout

This is the same as clicking the Thumbnail layout icon or selecting **Thumbnail layout** from the right-click pop-up menu. See “Preview the job—thumbnail proof” on page 218 for more information.



Signature selection

This option is the same as clicking the Signature setup icon or selecting **Signature selection** from the right-click pop-up menu. See “Impose the job” on page 219 for more information.

17.4.4 Preps setup options

Preps has a number of options available which globally affect the module.

To change the Preps module options, select **Edit > Options** from the Preps setup. This will display the following dialog:

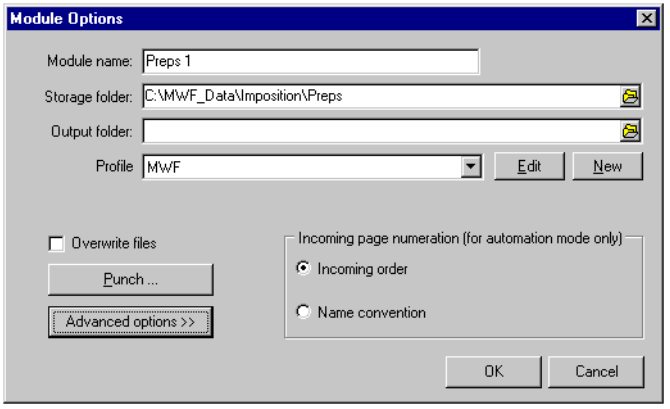


Figure 17.10 Preps Options dialog

This dialog provides the following options:

Module name This is the name of the module as it appears on the MWF workspace.

Storage folder This is the location for all data pertaining to the Preps module including configuration files.

Output folder This is the location for output files generated by the Preps module. In most circumstances, the output folder is defined in the output module at the end of the workflow. For example, the TIFF module decides the location of the output files. However, the Output folder defined within Preps allows you to either save a backup of the imposition or define a final destination for the output files if no output module is attached to the end of the workflow.

Profile A number of profiles can be created, saved and selected. For more information on profiles see "Profiles" on page 236.

Overwrite files Check this option to automatically overwrite files of the same name. If this option is not checked all files of the same name will be displayed. You are able to tell the difference between the files because the time displayed in the Received column of the Available File List will be different.

If for example, a number of files are submitted to the Preps module and then later resubmitted because they have been changed, you can check the **Overwrite files** option to ensure that all files of the same name are overwritten by the new, correct files.

Note: The **Overwrite files** option in the Optimizer module should be turned off when generating single files from a multi-page document. See Chapter 20, "Optimizer" for more information.

Incoming page numeration (Automatic composition only)

You can use the Page order option to decide how you want the pages to be recognized. The following options are available:

Incoming order

This option controls how pages are placed into the imposition templates. Each page is dropped into an imposition template slot in the order that they are submitted by the Queuer.

Name convention

This option allows the Preps module to recognize page numbers in incoming files. It should be checked in most circumstances, especially when multi-page files are being split using the Optimizer or Page Splitter modules. This option also allows the Preps module to recognize a name convention generated by the SmartScan

folder, provided that the name convention filters the file name down to just a page number. If other characters are generated, Preps may get confused.

17.4.4.1 Punch location

On selection of the **Punch** button the Punch locations dialog will appear.

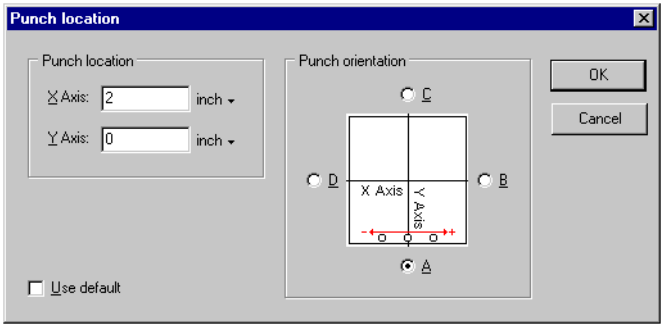


Figure 17.11 Punch location dialog

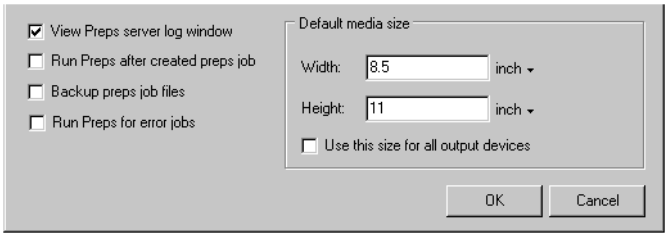
This dialog is used in conjunction with the option called **Places the actual punch mark** described on page 240.

If you print the punch mark on the media you can see how your template lines up with the automatic punch within the imagesetter. If the punch mark is off center or is punching along the wrong edge of the imposed flat you can use the options in the punch location dialog to make adjustments.

Before making adjustments you should uncheck the **Use defaults** option. This activates the x/y location and orientation options. When you select the A, B, C, D orientation options and either of the x or y location options, a red +/- arrow appears showing how positive and negative x/y values affect the location of the punch.

17.4.4.2 Advanced options

Click the Advanced button to display more module options.



View Preps server log window

Click this option to view the log window that contains information about the Preps module.

Run Preps after created Preps job

Click this option to automatically run Preps when a job has been saved.

Backup Preps job files

Click this option to automatically create backups of Preps job files. Backup files are stored in the `MWF_Data\Imposition\Preps\Save` folders.

Run Preps for error jobs

Click this option to automatically run Preps when a job has caused an error.

Default media size

In this section enter the width and depth of the media. If you want this media size to apply to all devices check the **Use this size for all output devices** option.

17.4.4.3 Profiles

You are able to store various user preferences for the Preps module in configuration files called profiles. In addition, you are able to edit or create new profiles for customization purposes.

To create a new profile click the **New** button.

To edit an existing profile, select the profile to be edited in the drop-down list and then click **Edit**. The Profile dialog will appear. This dialog has two tabs; **Preferences** and **Tiling and Fitting**.

Preferences

The Preferences tab provides input handling, color, punch, and print options. You can select as many of these options as required.

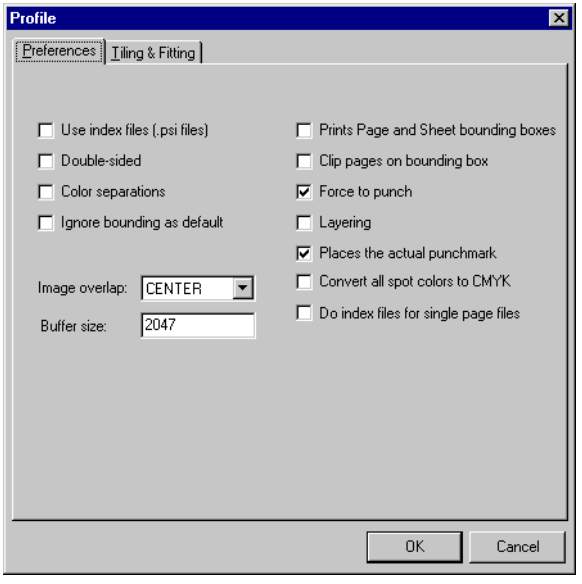


Figure 17.12 The Preferences dialog

The following options are provided in this dialog:

Use index files (.psi files)

With this option selected, the amount of time required to reload large PostScript language source files can be reduced. Index (.psi) files contain all the information required to load a file into Preps. Index files are generated when Preps reads the PostScript language source file. When you open the job with the same unaltered

PostScript language file, the index (.psi) file will be opened instead. If the PostScript language file has been changed, the source file will be opened.

Double-sided This is a print option and should be selected when using a double-sided printer and you are printing on both sides of the paper.

Color separations

This is a print option and should be selected when printing color separations. If this option is not selected, the output prints as monochrome or composite. In most situations this option would be left off.

In most workflows the output module would produce the color separations especially when a trapping module is used.

You can use the Preps module to produce the separations if the output files are going to be stored for later use, and the preferred file for that use is a preseparated file type.

Prints Page and Sheet bounding boxes

This option prints the bounding box as a visible image. This can be used to check positioning and backing up or for monitoring the creep of a magazine imposition. Once the positioning has been checked you should remember to turn this option off.

Clip pages on bounding box

This option will clip pages to the size of the bounding box provided in the PostScript language file. All bleeds that extend over the document edge will be clipped off.

Ignore bounding as default

With this option selected, the Preps module will, as a default, ignore the bounding box information supplied in PostScript language files.

Force to punch This option will position the imposition's punch edge to be in register with the imagesetter's punch, that is, matching the punch block on the imagesetter to the punch pin boards in a vacuum frame. This may use more media but removes the time and inconsistency of registering the films by hand on a light table. It will position the flat centered on and parallel to the punch block of the imagesetter.

Layering Preps allows you to design signature templates so that you can "double burn" pages together in the imposition. In other words, you may have a set of master items found on every page of a job (for example lottery tickets) but you may also wish to double burn onto each ticket variable information (such as "you are a winner", "sorry try again next time").

To do this: design your template in the stand-alone Preps application with independent pages on top of each other. For example, if have an 8-page imposition (8 slots). You place 8 pages all labeled #1 onto your template. Then, you place 8 more pages directly on top of the original 8. This second layer of 8 pages would be labeled #2-#9 respectively. In the Preferences Options dialog you would turn on Layering. In your setup (for Automatic mode) you would enter a run count of 9 pages. Assign the proper template (the one you designed with the overlay of pages). Submit your 9 pages into the Preps module and the module will take page 1 (the one with your master items) and put it in all the original 8 slots, it will then take the remaining pages and "double burn" them over the page 1 items (in their proper slots of course).

The only thing that must be kept in mind is that the pages you submit must be generated from a program that "recognizes" transparent backgrounds (such as Adobe Illustrator). In other words, you must be able to "see through" the top page in order for the final Preps

imposition to show both the master items on page 1 and the additional "double burn" items on pages 2-9 that are layered on top of page 1.

Places the actual punch mark

With this option checked the Preps module prints the punch target on the media as an aid to matching the position of the imposition template to that of the image-setter punch. If the punch mark is off center or is punching along the wrong edge of the imposed flat you can use the options in the punch location dialog to make adjustments see "Punch location" on page 235 for more information.

Convert all spot colors to CMYK

This option will convert all spot colors in the incoming file to equivalent CMYK separations. This option should only be used if there is no output module in the workflow, the files generated by the Preps module are going to be stored for future use, and the preferred file type is preseparated CMYK files.

In most workflows the spot color conversion should be performed within the output module, therefore this option should usually be left unchecked.

Do index files for single page files

Clicking this option ensures that index files are created for incoming single page files.

Image overlap This option determines image placement when tiling.

The options are `TOUCH`, `CENTER`, `ENCLOSED`.

Buffer size This option allows you to set aside a certain amount of memory for the Preps module so that it can work faster.

Tiling and Fitting

The Tiling and Fitting options configure how the Preps module fits its output onto the media on which a Preps sheet is being imaged. On selection the following dialog will appear:

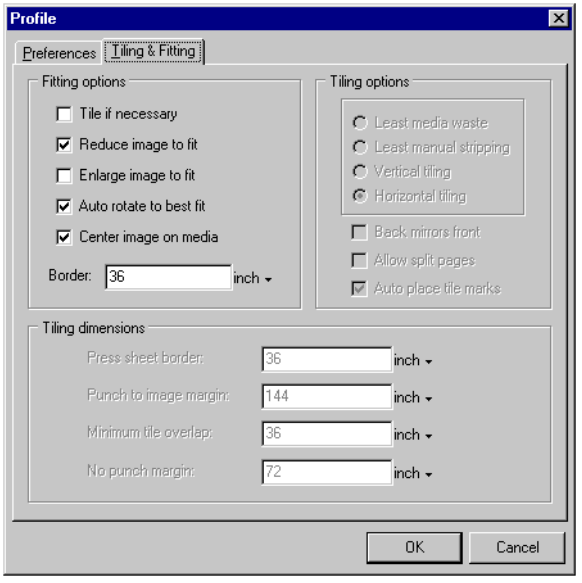


Figure 17.13 The Tiling and Fitting dialog

The following options are provided in this dialog:

Fitting options

Tile if necessary If the press sheet is larger than the sheet of media click this option. This will activate tiling. The options below define how the tiling is produced.

Reduce image to fit
If the press sheet is larger than the media, click this option to reduce the press sheet to fit it onto a single sheet of media.

Enlarge image to fit

If the press sheet is smaller than the media, click this option to increase the size of the press sheet to fill a single sheet of media.

Auto rotate to best fit

If you check this option the press sheet is auto-rotated so that it best fits the media sheet. (This option is only available for devices that do not have punches.)

Center image on media

Click this option to automatically center the press sheet on the sheet of media. (This option is only available for media sizes not using punch coordinates.)

Border If a press sheet is enlarged or reduced you can specify a border around the press sheet. If the press sheet is the same size or larger than the media, the border value is ignored. Use this option when printing to a laser printer because these printers cannot print right to the edge. Thus specifying a border ensures that the whole image is printed and not cut off.

Tiling options

Least media waste

Click this option to automatically tile the press sheet so that the least amount of media is wasted.

Least manual stripping

Click this option to automatically tile the press sheet in the direction requiring the least amount of manual stripping.

Vertical tiling Click this option to tile the output media vertically.

Horizontal tiling Click this option to tile the output media horizontally.

Back mirrors front

Clicking this option will tile the back of the press sheet with a mirror image of the front.

Allow split pages

Click this option so that tiles can contain partial pages. Preps will, as a default, tile the press sheet using only complete pages. If the Preps module can only tile a press sheet by splitting pages, a message will be displayed.

Auto place tile marks

Click this option and Preps will automatically add tile marks to the overlapping areas of adjacent tiles. The tile marks are used as an aid for manual stripping.

Tiling dimensions

These options control the placement of tiles. Selecting the down-arrow at the right of each option allows the units to be changed.

Press sheet border

When using a template that contains marks that are outside the press sheet, you should configure a press sheet border so that the marks print with the job. The values specified in this field are added to all sides of the press sheet.

Punch to image margin

When using a device with a punch, you can specify a Punch to image margin to ensure that the image area of the tile does not appear in the punch area of the tile. When only a single tile is used, this value is ignored.

Minimum tile overlap

This field specifies the smallest amount of overlap allowed for tiles. The overlap area may be larger than the specified amount. When the **Allow split pages option**

is checked, partial pages can appear in the overlap area. If this option is not checked, the partial page will not be imaged.

No punch margin

This option allows an image-free area for manual punching. This is useful when an output device does not have a punch and a single tile is imaged.

When the Profile has been completed click **OK** to save the values. Clicking **Cancel** will abort any changes.

17.4.4.4 Job Information

Job Information is text that is printed on the final imposition page. Usually it is placed along the lower edge of an aluminium plate or imagesetter media. It picks up information about the job and places that information on each side of each signature template.

This option is used in conjunction with text marks that are predefined in the stand-alone version of the Preps program when a template is created. The Preps module takes the information provided in this dialog, finds the corresponding section of the Preps template text mark and labels the signature with this information.

Job Information comes in two parts:

- Job Type
- Job Contents

To create Job information:

1. Select **Job > Job Information**. The following dialog appears:

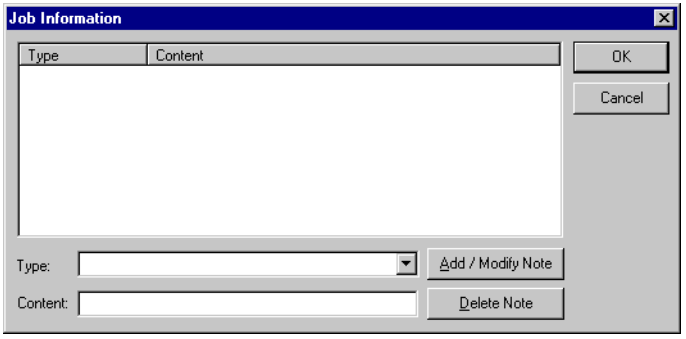


Figure 17.14 Job information dialog

2. In the **Type** field either select an option from the drop-down menu or key in a new information Type. The job information Types must match a variable that exists on the signature template. In addition, you should use the predefined variables that Preps has been programmed to recognize. For a list of those variables refer to *Chapter 20* of the *ScenicSoft Preps PRO PLUS User Guide* for more information.
3. In the **Content** field, enter text for the job information. This is a limited text field and will not scroll if too much text is used. In addition, you must ensure the signature template has enough space to accommodate your text and variables otherwise the labeling may run over the top of other labeling on the final film / plate output.
4. Now click the **Add/Modify Note** button. This will add the text in the Type and Content fields to the main window of the dialog.
5. To edit an existing note, select the note to be changed, edit the Type and Content fields and then click **Add/Modify Note**. At present this option does not allow proper editing of Job information.

6. Click **OK** to close the dialog. The job information remains associated with the job.

   It is important you understand the following two points about Job information:

   - If the Job information is important to keep for future use, you should save the job as a Job template for later recall. Otherwise, when you choose to create a New job (by selecting New Job from the File menu) the job information will be automatically purged.
   - Always choose the New Job option (from the File menu) when creating a new imposition design. If you try and create a new imposition by just deleting the current pages in the File List, Run List and Signature List, the job information from the previous job will still be active and therefore applied to the new job.

17.5 Preps Viewer

The Preps Viewer window displays the status of the Preps module along with information about the individual files being processed by the module. The only options documented here are those that are different to the standard controls which are described in “Monitoring job processing in MWF” on page 17

1. Right-click the Preps module and select **View** from the pop-up menu. The list of Preps modules will appear in a list.

2. Click the **File List** icon to view a list of files available to the module. The following dialog will appear:

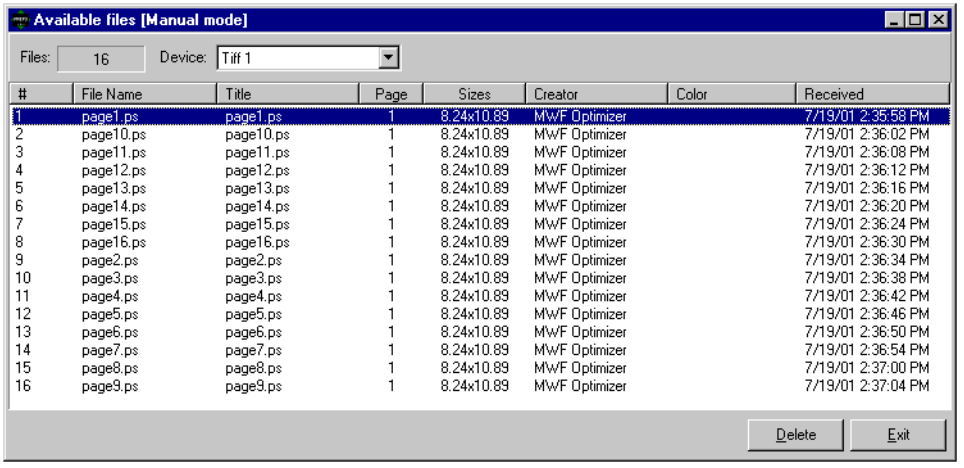

Available files [Manual mode]
Files: 16
Device: Tiff 1
File Name Title Page Sizes Creator Color Received
1 page1.ps page1.ps 1 8.24x10.89 MWF Optimizer 7/19/01 2:35:58 PM
2 page10.ps page10.ps 1 8.24x10.89 MWF Optimizer 7/19/01 2:36:02 PM
3 page11.ps page11.ps 1 8.24x10.89 MWF Optimizer 7/19/01 2:36:08 PM
4 page12.ps page12.ps 1 8.24x10.89 MWF Optimizer 7/19/01 2:36:12 PM
5 page13.ps page13.ps 1 8.24x10.89 MWF Optimizer 7/19/01 2:36:16 PM
6 page14.ps page14.ps 1 8.24x10.89 MWF Optimizer 7/19/01 2:36:20 PM
7 page15.ps page15.ps 1 8.24x10.89 MWF Optimizer 7/19/01 2:36:24 PM
8 page16.ps page16.ps 1 8.24x10.89 MWF Optimizer 7/19/01 2:36:30 PM
9 page2.ps page2.ps 1 8.24x10.89 MWF Optimizer 7/19/01 2:36:34 PM
10 page3.ps page3.ps 1 8.24x10.89 MWF Optimizer 7/19/01 2:36:38 PM
11 page4.ps page4.ps 1 8.24x10.89 MWF Optimizer 7/19/01 2:36:42 PM
12 page5.ps page5.ps 1 8.24x10.89 MWF Optimizer 7/19/01 2:36:46 PM
13 page6.ps page6.ps 1 8.24x10.89 MWF Optimizer 7/19/01 2:36:50 PM
14 page7.ps page7.ps 1 8.24x10.89 MWF Optimizer 7/19/01 2:36:54 PM
15 page8.ps page8.ps 1 8.24x10.89 MWF Optimizer 7/19/01 2:37:00 PM
16 page9.ps page9.ps 1 8.24x10.89 MWF Optimizer 7/19/01 2:37:04 PM
Delete
Exit

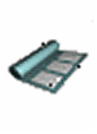
Figure 17.15 The Available Files List

Note: The total number of files is displayed in the top left corner of the dialog. You are able to display the files according to their output device by selecting the output device from the drop-down menu in the **Device** field.

If required, available files can be removed from the list by selecting the file and clicking the **Delete** button.

18

Media Saver



The Media Saver module places raster files on the media so that the full width of the output device is utilized.

18.1 Media Saver workflow

The Media Saver module consumes and produces raster data and is placed between the Harlequin RIP module and the output device.



Figure 18.1 Media Saver workflow

18.2 Media Saver controls

Right-click the Media Saver module to display the pop-up menu showing the configuration and viewing options:

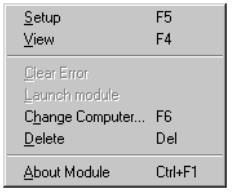


Figure 18.2 Media Saver pop-up

The following controls are available for the Media Saver module:

- **Setup**—see "Media Saver setup" below.
- **View**—see "Media Saver Viewer" on page 251.

See "Module shortcut menus" on page 18 for details on the other general options in the pop-up.

18.2.1 Media Saver setup

To configure the Media Saver module select **Setup** from the pop-up menu.

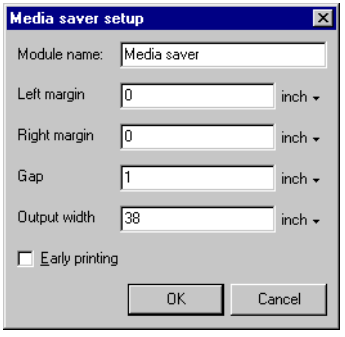


Figure 18.3 Media Saver setup dialog box

This dialog provides access to various configuration options.

This module works by storing each output raster on a flat until the full width of the media is achieved. At this point, the flat is output.

If you would like to change the units of measurement of any of the options in the Media Saver module, select the down-arrow at the right side of the dialog.

Module name

Allows you to enter a new name for the module. The module name is used wherever the module is referenced: on the workspace; in log files; when linking to and from other modules.

Left/Right margins

This option defines the non-printable areas of the media. Some devices are unable to print right up to the edge of media therefore is important that you take this into account when defining the margins.

Gap

This option defines the gap between individual pages that are placed inside the printable area.

Output width

The value in this field is the width of the film or paper in the output device. The jobs are collected on a flat until the size(s) of the job(s) are bigger then the programmed output width size.

Early printing

This option keeps track of the average job width coming into the module and assumes that the next file to arrive is the same size. If the size extends beyond the **Output width** value, the system prints the flat, feeds and cuts the media then after that, prints the file that was too large.

18.2.2 Media Saver Viewer

Select the **View** option from the pop-up menu or double-click the Media saver module icon to display the Media Saver Viewer window.

The status of the Media saver module is displayed along with information about the individual files being processed by the module. The only options documented here are those that are different to the standard controls which are described in “Monitoring job processing in MWF” on page 17.

When a raster file is consumed by the Media saver module it appears in the Media Saver View dialog list:

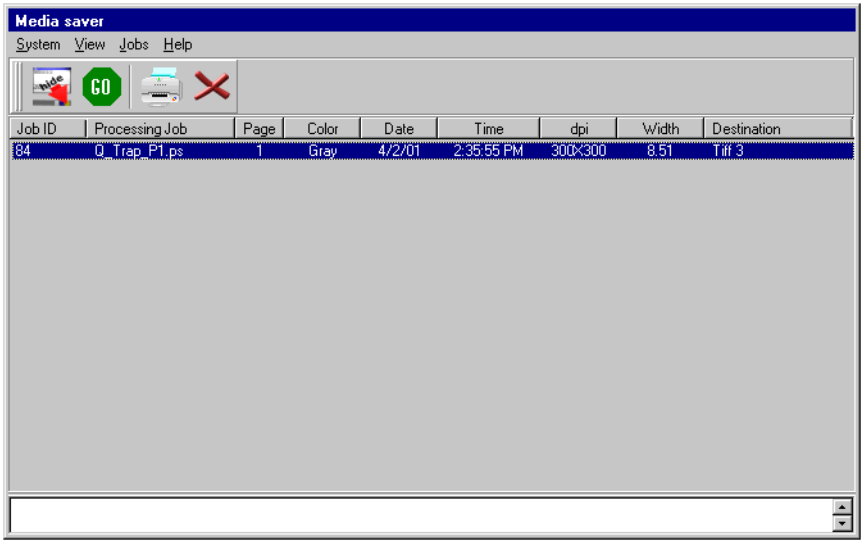


Figure 18.4 Media Saver Viewer


Select this icon to print the currently selected file.


Select this icon to remove a file from the Media saver module.

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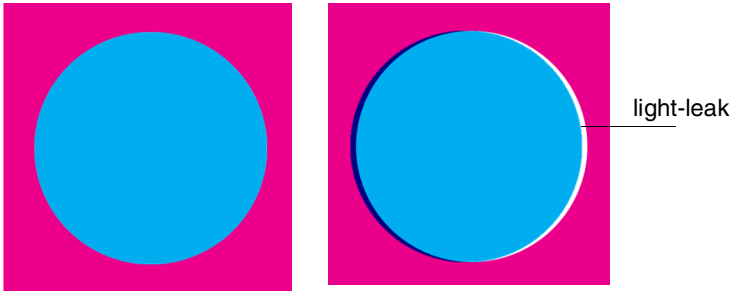
TrapPro



This module allows you to add TrapPro, the advanced, object-based, in-RIP trapping solution from Global Graphics, to your digital prepress workflow.

19.1 The need for trapping

In four-color process printing, the separations must be printed with perfect alignment if the inks are to *register* correctly, as shown in Figure 19.1(a). Because of the way the paper twists and stretches in the press, perfect alignment is very difficult to achieve, so there is always the possibility that the separations will misregister to leave unsightly gaps or light-leaks in the finished print, as shown in Figure 19.1(b).



(a) A registered image (b) A misregistered image

Figure 19.1 The same image printed registered and misregistered

To counteract the effects of misregistration allowances are made in the job itself to compensate for possible misregistration. This process is known as *trapping*. The trapping engine used by TrapPro examines the objects on the page and calculates where light-leaks are likely to occur. It then spreads (expands) or chokes (contracts) the ink boundaries at these places to compensate for any misregistration that may occur when the job is printed.

Once the TrapPro module has been implemented in your digital prepress workflow, trapping is handled automatically each time a job is processed. Saving you time and wasted output due to press misregistration.

19.2 The TrapPro workflow

To create a workflow that implements in-RIP trapping, place a TrapPro module immediately *after* a Harlequin RIP module and link the output to your output device, as shown is Figure 19.2. Queuers may be used in the workflow to facilitate workflow management.



Figure 19.2 Example TrapPro workflow

19.3 TrapPro controls

Right-click the TrapPro module to display a pop-up menu of the configuration and viewing options:

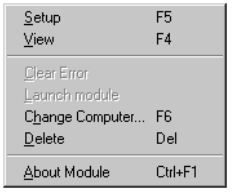


Figure 19.3 TrapPro module pop-up menu

The pop-up menu contains the following options for TrapPro:

- **Setup**—see "TrapPro setup" below.
- **View**—see "TrapPro Viewer" on page 262.

See "Module shortcut menus" on page 18 for details on the other general options in the pop-up.

19.3.1 TrapPro setup

TrapPro module options are specified in the Setup TrapPro dialog box, which is shown in Figure 19.4. To access this dialog, right-click the module and choose **Setup** from the menu, or use the shortcut key **F5**.

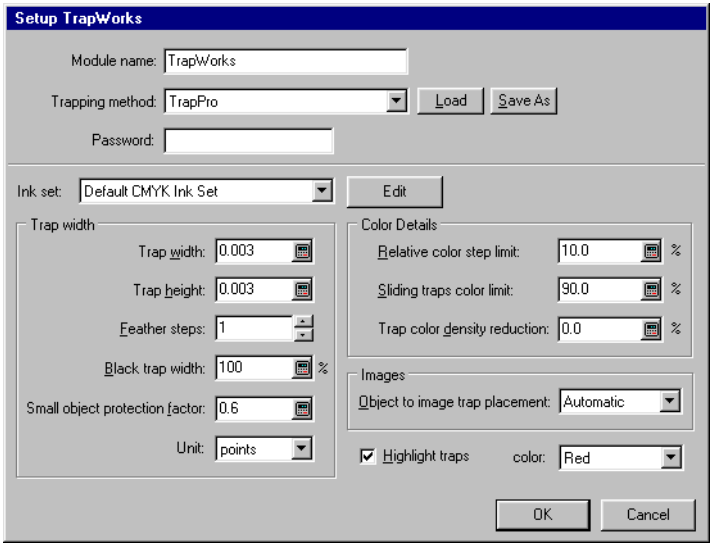


Figure 19.4 TrapPro options dialog

The following options are available:

Module name

Allows you to enter a new name for the module. The module name is used wherever the module is referenced: on the workspace; in log files; when linking to and from other modules.

Trapping method

Use the drop-down menu to choose the method of trapping in your print processing. The options are:

`None` Disables trapping, including traps in the job that have been defined with `settrap` in QuarkXPress. However, any traps defined in the job using PostScript LanguageLevel 3 will be included.

`TrapPro` Enables TrapPro as the trapping solution.

`Settrap (Quark)`
When selected, trapping is handled by trapping parameters embedded in the job by QuarkXPress and its `settrap` PostScript language extension.

Password

Type in your trapping password to enable TrapPro.

Load

Click **Load** to load a TrapPro configuration. Select a saved `.trp` file and click **Open**. Use the **Save** option to save the settings to disk first.

Save

Click **Save** to save the current configuration settings to disk. Use the **Load** option to load the options from disk.

19.3.2 TrapPro options

The following options are available when TrapPro is enabled in the TrapPro module and TrapPro is selected as the trapping method.

Ink set

The ink set contains ink details for each separation used in a job. TrapPro uses the ink type to determine if an ink should be trapped. From the menu select an ink set to use, or click Edit to create a new ink set. See Section 19.3.3 on page 260 for information about creating ink sets.

Trap width

A measurement for the width size of normal traps generated. Normal traps consist of all traps, except those created against black or narrow objects, such as small text or thin lines. The value you enter relates to the amount of possible horizontal misalignment occurring in the output device.

Trap height

A measurement for the height of normal traps generated by TrapPro. The value you enter relates to the amount of possible vertical misalignment occurring in the output device.

Jaws PDF Server creates anamorphic traps when different values are entered for trap width and trap height.

Feather steps

The number of color gradiation steps to use in the trap. The default value for this setting is `1`, meaning traps are produced with a normal, constant color trap. Any greater value turns the hard edge of the trap into a gradiation. Note that feathering is achieved at the expense of considerable extra computation, so increase this value with caution.

Black trap widths

The number of color gradiation steps to use in the trap. Enter a percentage value of the normal trap width to use when trapping against black objects. For example, a value of `200%` creates black traps which are twice the width of normal traps.

Small object protection factor

A ratio of the object width to the normal trap width. The protection factor ensures the trap is never greater than a ratio of the average width of the object to the normal trap width. For example, the default value of `0.6` ensures the trap is never greater than 60% of the object it is trapping against.

Unit

The unit of measurement for trap width and height settings. Choose from points, inches, feet, millimeters and metres.

Relative color step limit

Determines how traps are generated according to the relative *color change* between the two objects under consideration. For example, when a small value is set, the relative color step between the objects need only be small before a trap is considered necessary. However, using too small a value could cause too many traps to be generated.

The default setting of `10%` is a good starting point when working out the optimum setting for Relative color step limit.

Sliding traps color limit

A threshold value which determines when a trap should begin to straddle the boundary between two colors. Sliding traps are used to prevent a sudden and noticeable step in the trap where the trap crosses the spread/choke threshold. When the limit is set to `0%` the trap always slides, when set to `100%` the trap never slides.

Trap color density reduction

A value which scales the trap color towards the neutral density of the darker of the two colors involved in the trap. When the value is set to `100.0`, the trap is as light as it will go. This setting applies to all traps except where objects use black or opaque colors.

This control is ignored when **Feather steps** is set to any value greater than 1.

Object to image trap placement

Specifies how objects should trap against images. From the menu select from `Spread`, `Choke`, `Centerline`, or `None`, as described in Table 19.1.

Automatic	Jaws PDF Server automatically decides the trapping method to use based on the object colors involved.
Spread image	Traps are generated by spreading the image area into the object.
Choke image	Traps are generated by spreading the object into the image area.
Center	Half spread/choke where the trap is centered around the original boundary of the two objects. This is the default setting for objects in Jaws PDF Server, and is considered the most useful setting.
None	Objects remain untrapped against images/text.

Table 19.1 Trapping options for object to image/text traps

Highlight traps

Select this check box to generate a separation for each trapping zone that shows where traps are being placed. Choose red or green from the **color** menu to display the highlighted traps.

19.3.3 Managing Ink sets

Ink sets are created and managed in the Ink Set Manager, shown in Figure 19.5. To open it click **Edit** in Setup TrapPro. Ink sets allow you to associate an ink type with a color separation. TrapPro uses the ink type information to determine how the ink should be trapped.



Figure 19.5 Ink Set Manager

TrapPro recognizes the following ink types:

Normal Inks of this type are trapped normally. That is, inks of this type are trapped against each other using a normal trap width.

Opaque Inks of this type are *not* trapped *except* to another opaque ink. Metallic is an example of an opaque ink.

Opaque ignore Inks of this type are never trapped.

Transparent Inks of this type are *not* trapped *except* to another transparent. Varnish is an example of a transparent ink.

By default the Ink Set Manager contains one ink set called Default CMYK Ink Set, which contains the standard inks for cyan, magenta, yellow, and black separations typically used in a job. You cannot edit or delete this ink set, but you may click **Copy** to make a duplicate set and amend that instead.

To edit an ink set click **Edit**, or to create a new one click **New**. The Edit Ink Sets dialog box opens for both choices, as shown in Figure 19.6.

Using the controls in Edit Ink Sets you can create a new ink set, or add new inks and amend inks in an existing ink set. The inks that you include in the ink set should match those specified in the job itself (as defined in the output device module under the settings for Colors). Normal trapping will be applied to any separation *not* listed in the ink set.

As necessary, amend/create inks using the **Ink Name**, **Type** and **Density** controls. If you do not know the neutral density value enter `1.0` and TrapPro will automatically determine the neutral density of the ink when the job is processed.

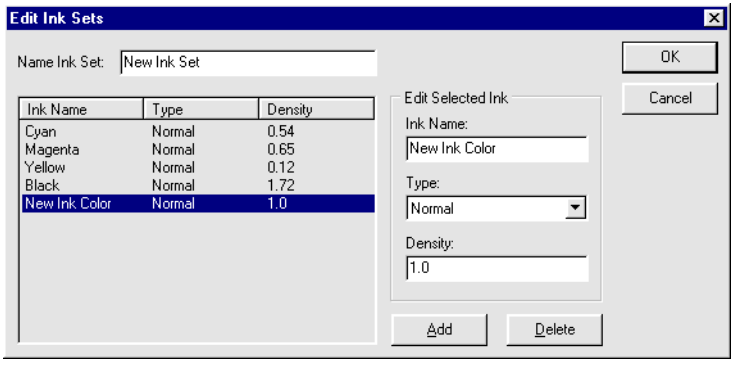


Figure 19.6 Edit Ink Sets dialog

When you have done adding/amending inks click **OK** to save your settings and return to the Ink Set Manager window, then click **OK** to save your changes in the Ink Set Manager. If you click **Cancel** your changes will not be saved.

19.3.4 TrapPro Viewer

If you choose **View** from the module pop-up menu, the TrapPro Viewer window opens showing a list of TrapPro modules that are on the workspace and a Message Log window for viewing module information.

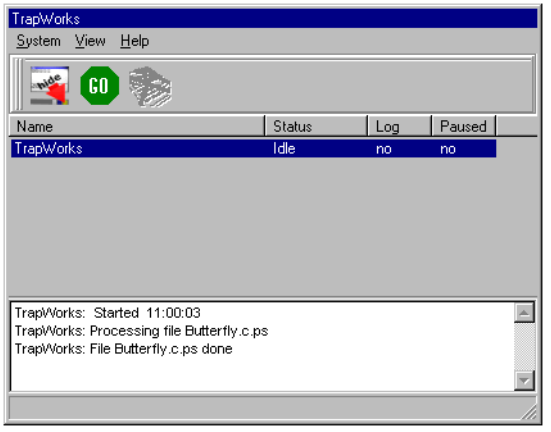


Figure 19.7 TrapPro Viewer

The following information is available for each module:

Name

This column lists the name of the TrapPro module is it appears in the workspace. The module name is configured in the Setup TrapPro dialog box as described in “Module name” on page 256.

Status

This column indicates the current processing status of the module, that is, whether a module is currently idle or busy processing a job.

Log

This column indicates if the module is set to generate messages as it processes a job. When set, messages are output to the Message Log window and also to the log file `MWF.LOG`—see “Log file directory” on page 15 for details on how to specify the location of this file.

Pause

This column indicates the current stop/start status of the TrapPro module. To process a job, a module must be started, and any jobs passed to a stopped module will be held there until the module is restarted.

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Optimizer



The Optimizer consumes standard PostScript language, EPS, TIFF and PDF files and produces PostScript language files and EPS files with or without preview, that are leaner and fully optimized for the intended output device. In addition, the Optimizer is able to embed a low-resolution, screen preview file into the job, making it ideal for use in OPI (Open Prepress Interface) environments, see Chapter 10, “OPI” for more information on using OPI in your digital prepress workflows.

The benefits of using the Optimizer in the digital workflow can be summarized as follows:

- Job files are smaller and more compact so they are more portable.
- The Optimizer can add EPS preview files to the job which are necessary when dealing with OPI files.
- Font integrity is maintained in jobs that have fonts embedded.

20.1 Optimizer workflow

The Optimizer module accepts PDF, EPS, TIFF and PostScript language files directly from the SmartScan module and outputs the optimized file to either a PDF distiller, an OPI module or directly to a Harlequin RIP module. It can also

be used as a stand-alone destination to convert PostScript Level 3 or PDF into PostScript Level 2 for older RIP configurations. Figure 20.1 shows each of these workflows.

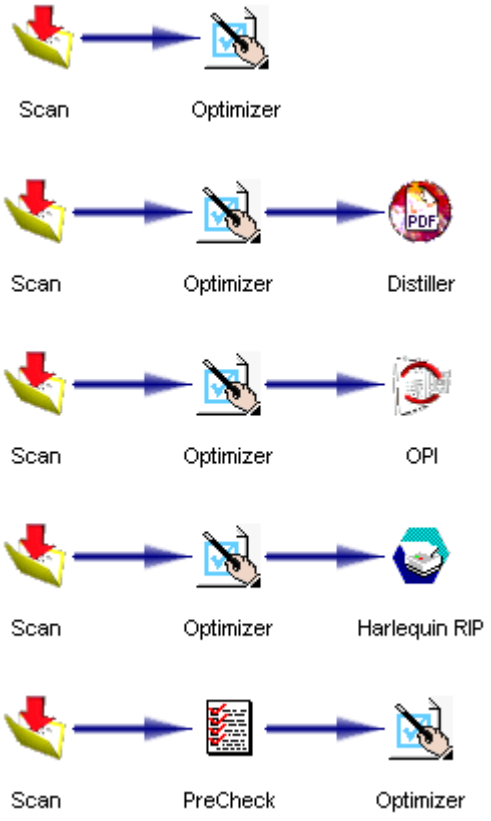


Figure 20.1 Optimizer workflows

20.2 Optimizer controls

Right click the Optimizer module to display the pop-up menu showing the configuration and viewing options:



Figure 20.2 Optimizer pop-up menu

The following controls are available for the Optimizer module:

- **Setup**—see "Optimizer setup" below.
- **Fonts**—see "Optimizer fonts" on page 275.
- **View**—see "Optimizer Viewer" on page 278.

See "Module shortcut menus" on page 18 for details on the other general options in the pop-up.

20.2.1 Optimizer setup

To set configuration options for the Optimizer, right-click the module and choose **Setup** from the pop-up menu. Configuration options for the Optimizer are described in the following subsections.

20.2.1.1 General tab

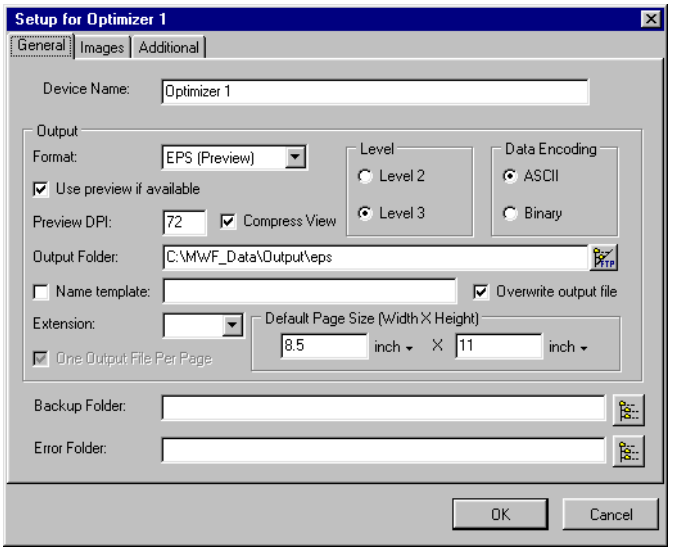


Figure 20.3 Optimizer Setup General tab

Device name

Allows you to enter a new name for the module. The module name is used wherever the module is referenced: on the workspace; in log files; when linking to and from other modules.

Output options

Format

This is the PostScript language file type to use when optimizing jobs. The options to choose from the drop-down list are as follows:

`PS` Produces an optimized PostScript language file. If you choose this option, no preview image can be created and consequently the preview options are disabled.

`EPS` The module produces an optimized Encapsulated PostScript file. A preview image will only be available when it is already present in the job.

`EPS (preview)` The module produces an optimized Encapsulated PostScript file with a preview image. This is the setting usually chosen when OPI is employed in the system—see Chapter 10, "OPI" for details on employing OPI in your workflow. The preview image allows the page layout operator to see a low resolution copy of the image on the proofing page and so helps when making page adjustments (cropping, rotation, scaling, and so on).

Use preview if available

Select this check box if you want to keep any preview file already embedded in the PostScript language job and *not* create a new one. This option is only available when **`EPS Preview`** is selected as the output format.

Preview DPI

This is used to set the output resolution of the preview image. The default setting is 72 dpi which is adequate for most screen preview purposes.

Output Folder

Use this option to specify a folder for optimized PostScript language files produced by the Optimizer module. If the Optimizer passes its output directly to another module, as seen in Figure 20.1, then it is not necessary to specify an output folder. However, you may wish to set an output folder so that the optimized PostScript language files are available for later use.

Enter the folder location directly in the text box or click  and use your mouse to navigate to a folder.

Name template

This field allows you to specify a template so that PDF files are named according to the tags that are specified. The following tags are supported:

- **<NAME>**—the job name, e.g. **jobname.ps**.
- **<COLOR>**—the color name, e.g. **Gray**, **Cyan**, **Magenta** etc.
- **<PAGE>**—the page number, e.g. **1**, **2** etc.
- **<TITLE>**—the name of the PostScript language file, without the **.ps** extension, e.g. **jobname**.

If you use the naming convention feature in the SmartScan module to create other tags with different field names, for example **name1**, you can also use these tags. To use tags created by the naming convention feature, you must precede them with **pg_**, for example, **<pg_name1>**. The prefix **pg_** and the field names are not case sensitive and can be in any order.

If an Imposition module is part of your workflow then the following standard tags are also available for use in a file name template:

- **<TIME>**—the time at which the file was processed, e.g. **153936** (approximately 3:39 pm).
- **<DATE>**—the date on which the file was processed, e.g. **20000412** for a file processed on the 4th of April, 2000.
- **<PLATE>**—the plate number, e.g. **01**.
- **<PROJECT>**—the project name, as specified in the Imposition module, e.g. **Project_0**.

These tags do not require a prefix and are *not* case sensitive.

Overwrite output file

Selecting this option will cause the module to overwrite any files with the same name in the output folder.

Extension

This is the file extension name that is added to the optimized file. From the drop-down list choose **EPS** or **PS**, or enter your own extension if required.

One output file per page

Select this check box when you want the Optimizer to break a print job containing composite pages into separate files, each with its respective page number, as seen in the PostScript language file comments.

Default page size

This specifies the page size for the output device so that the job can be optimized accordingly. Choose the accompanying unit of measurement (points, inches, mm, and so on) from the list.

Level

This option is used to select the PostScript language level for the optimized file.

Data encoding

Specifies the encoding type for the optimized file. There are two options, `ASCII` or `Binary` and the type you choose will largely depend on your processing environment. As a general rule—for compatibility reasons, you should use ASCII encoding if your page creation platforms incorporate a mix of NT and Macintosh workstations.

Backup folder

Enter the location of the folder where backup files are stored. Backup files can help safeguard against losing your files in the event of a system failure. Click within the text box and type in the path directly, or click  and use your mouse to navigate to the folder.

Error folder

Enter the location of the folder where files which fail the optimization process are sent. Click within the text box and type in the path directly, or click  and use your mouse to navigate to the folder.

20.2.1.2 Images tab

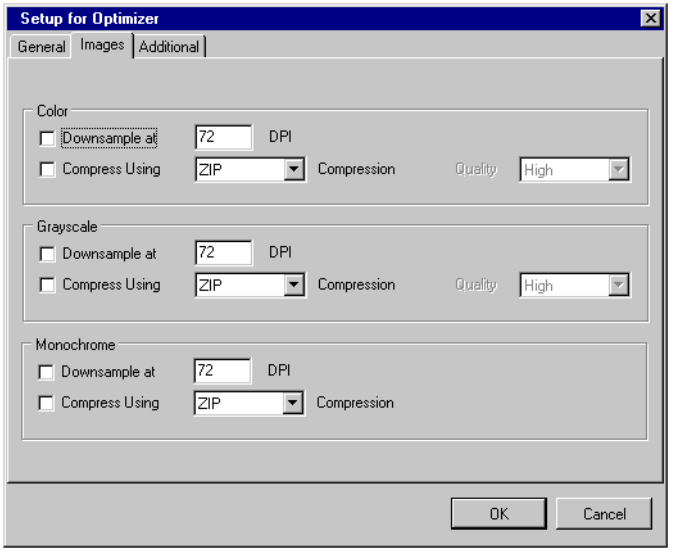


Figure 20.4 Images tab

Downsample at

Select this check box and specify the resolution to which images found in a PostScript language file are reduced.

Compress using

Select this check box and choose `ZIP`, `Flate` or `JPEG` from the drop down menu. Some experimentation may be necessary to find the compression method which suits you best.

Note: The terms ZIP and Flate are interchangeable; they both refer to the same kind of compression.

Quality

This option is available when `JPEG` is used as the image compression method. From the drop down menu select the image quality to use for JPEG compression.

20.2.1.3 Additional tab

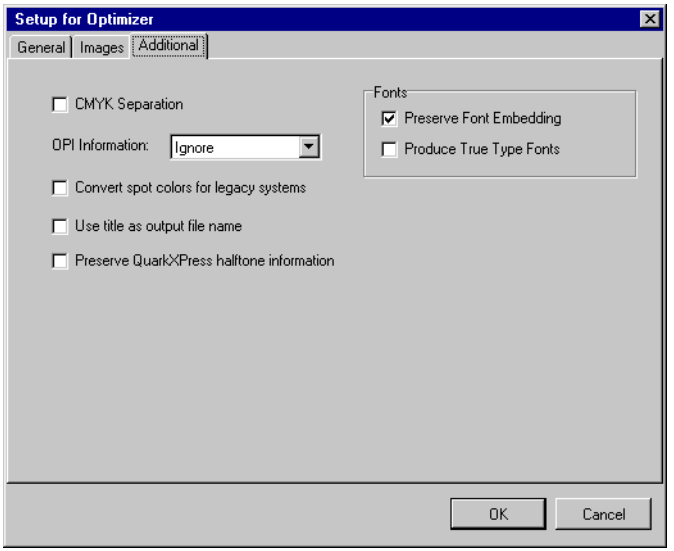


Figure 20.5 Optimizer Setup Additional tab

CMYK Separation

Select this check box to convert a CMYK composite file into CMYK separations.

OPI Information

This determines how OPI information, contained in the PostScript language file is maintained. The options in the menu are:

`Ignore`	OPI information present in the PostScript language file is removed during optimization.
`Preserve`	OPI information present in the PostScript language file is not removed during optimization.
`Apply`	The optimizer applies OPI information into the optimized PostScript language file, using the OPI information already present in the job file.

Convert Spot Colors for legacy systems

Select the check box to convert spot colors, such as Pantone® colors, to equivalent CMYK colors. This option is designed as a workaround for use with certain editorial systems.

Use title as output file name

Select the check box so that the PostScript language file title is used as the optimized output file name instead of the printed file name. That is, when printing the PostScript language file from a page layout program, the name given the PostScript language file may be “pages 1-16” whereas the original file name was “Framed Kitchen Cabinets”. Selecting this option forces the file to be named by the original document name “Framed Kitchen Cabinets”.

Preserve QuarkXPress halftone information

Select this check box to retain halftone screening information set in QuarkXPress. The halftone frequency and angles specified in the Output tab of the Print dialog in are retained but the Dot shape information is not saved.

Fonts

Preserve Font embedding

Select this check box to keep fonts which are embedded in the PostScript language file. Embedded fonts maintain their integrity across different machines, even when the machine does not have the font installed.

Produce TrueType fonts

Select this check box if you want to maintain the embedded TrueType fonts present in the PostScript language file. When this box is not selected, TrueType fonts are substituted with Type 1 fonts. **Preserve Font embedding** must be selected for this option to be effective.

20.2.2 Optimizer fonts

To add, remove or substitute fonts, choose **Fonts** from the Optimizer module pop-up. The Fonts dialog opens.

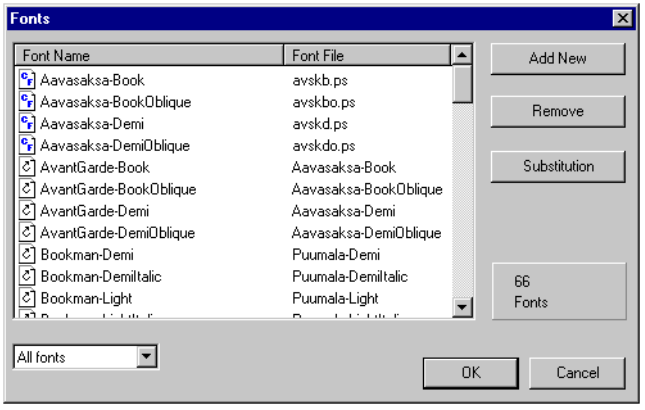


Figure 20.6 Fonts dialog

You can use the Fonts dialog to create an available fonts list, which should match the list of fonts available in the Harlequin RIP module.

Each kind of font in the Fonts dialog is distinguished by an icon in the margin. Use the menu in the lower left corner of the dialog to select the type of fonts to be viewed. The `All fonts` option displays all the available fonts.

Add New

Click the **Add New** button to display the Add Fonts dialog box, allowing you to select the folder where the Optimizer module can find the fonts you wish to add.

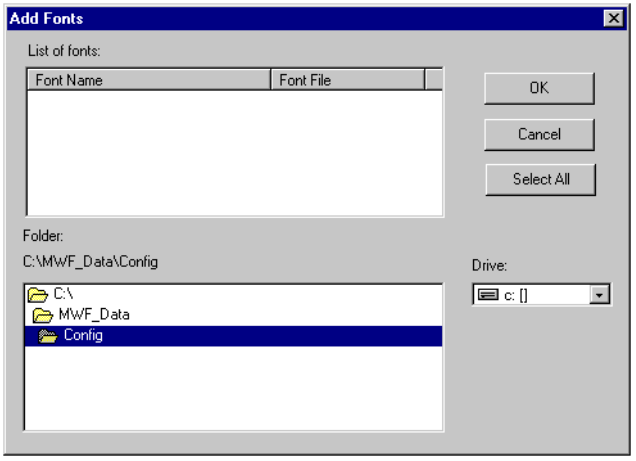


Figure 20.7 Add Fonts dialog box

You can select as many fonts as you like.

Shift To select a block of several fonts, select the first font in the block, and then hold down the Shift key and select the last font in the block.

Ctrl To select several unconnected fonts, hold down the Control key while making your selection.

To select all the fonts displayed in the list click the **Select All** button. When you have selected the required fonts to be loaded click **OK**. You will be prompted to restart the module for your changes to take effect.

Remove

To remove fonts from the system, highlight the fonts in the list and click this button. You must click **Yes** in the Confirmation dialog box.

Substitution

This option allows you to substitute one font for another.

The dialog that appears when this option is selected has two areas, the upper text box labeled **Name of the substitution**, is where you key in the name of the font to be substituted; and the lower menu, labeled **Font to Substitute**, is where you select the font to be used as the substitution.

Generally, it is preferable to use the exact font that was used in the design of the document. However, there are times when this is not possible; a font may be corrupt; or the original font may not have been sent with the original file. In such cases the only solution is to substitute with a font that is very similar in design to the original specified font. The customer may ask you to do this to get the job done on time.

One solution is to open up all the pages in the original application program and search and replace every occurrence of the problem font. This is not ideal as it is time consuming; you may not have the original application and if you miss one or two occurrences where the font was used the processing time would be wasted.

Having the Optimizer module offer to do the substitution for you "on the fly" is the solution because all occurrences are guaranteed to be substituted.

20.2.3 Optimizer Viewer

Right-click the Optimizer module and choose **View** from the pop-up menu to display the Optimizer Viewer window, as shown in Figure 20.8.

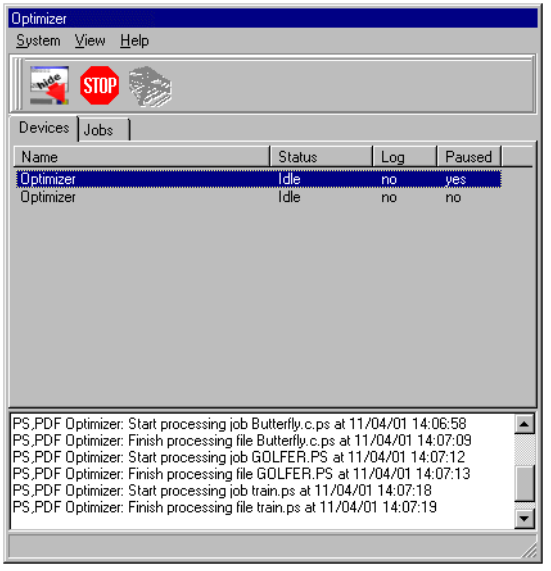

Optimizer
System View Help
STOP
Devices Jobs
Name Status Log Paused
Optimizer Idle no yes
Optimizer Idle no no
PS,PDF Optimizer: Start processing job Butterfly.c.ps at 11/04/01 14:06:58
PS,PDF Optimizer: Finish processing file Butterfly.c.ps at 11/04/01 14:07:09
PS,PDF Optimizer: Start processing job GOLFER.PS at 11/04/01 14:07:12
PS,PDF Optimizer: Finish processing file GOLFER.PS at 11/04/01 14:07:13
PS,PDF Optimizer: Start processing job train.ps at 11/04/01 14:07:18
PS,PDF Optimizer: Finish processing file train.ps at 11/04/01 14:07:19

Figure 20.8 Optimizer Viewer

The Viewer allows you to view the status of all Optimizer modules on the workspace, as well as a list of all jobs which have been consumed by the modules and a message window showing module messages.

The controls available in the Optimizer Viewer are described in “Monitoring job processing in MWF” on page 17. The other features of the Viewer are described next.

20.2.3.1 Devices tab

Name

This column lists the name of the Optimizer module is it appears in the workspace. The module name is configured in the Optimizer setup dialog box as described in “Device name” on page 268.

Status

This column indicates the current processing status of the module, that is, whether a module is currently idle or busy processing a job.

Log

This column indicates if the module is set to generate messages as it processes a job. When set, messages are output to the Log View window and also to the log file `MWF.LOG`—see "Log file directory" on page 15 for details on how to specify the location of this file.

Pause

This column indicates the current stop/start status of the Optimizer module. To process a job, a module must be started, and any jobs passed to a stopped module will be held until the module is restarted.

20.2.3.2 Jobs tab

Job

This column lists the jobs that have been processed by the Optimizer module.

Device

This column shows which module processed the job.

Time In

This column shows the time at which the Optimizer module began processing the job.

Time Out

This column show the time at which the Optimizer module finished processing the job file.

21

PDF Creator



The PDF Creator module converts PostScript® language files (PS and EPS), PDF and TIFF images into Portable Document Format (PDF) files that are fully compliant with PDF 1.3 and 1.2 specifications published by Adobe Systems Incorporated.

21.1 PDF Creator example workflows

The example workflows in this section illustrate how and where PDF Creator modules may be implemented in your digital prepress workflows.

In Figure 21.1, PDF Creator is used simply to convert PostScript language files into PDFs. Such a workflow might be employed in a document publishing environment and might be used to produce PDFs suitable for printing or on-screen viewing.

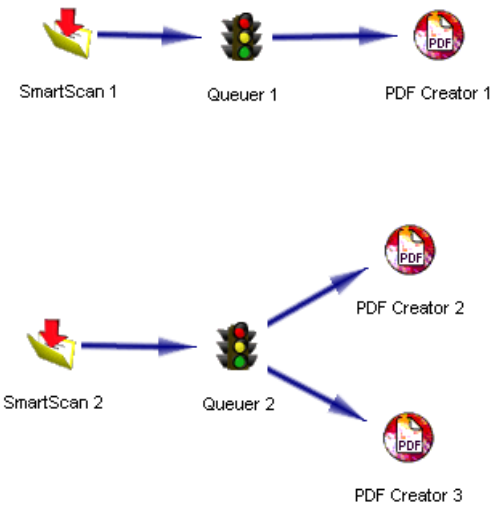


Figure 21.1 Example 1: PDF Creator produces PDF suitable for printing

In Figure 21.2 the PDF Creator module is used to produce an optimized PDF suitable for ripping. In this workflow, the PDF Creator module is employed simply to produce a smaller file, much reduced in size to the original PostScript language file, and ultimately results in the job ripping faster, especially, for example, when trapping is employed in the Harlequin RIP module.

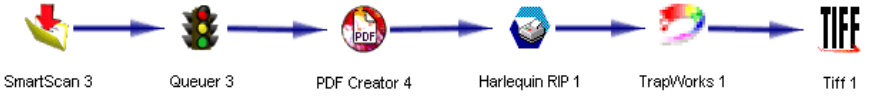


Figure 21.2 Example 2: PDF Creator produces optimized job prior to ripping

In the third example, Figure 21.3, the PDF Creator module is employed in the workflow to create a virtual proof. Virtual proofs, sometimes referred to as *soft proofs*, are very desirable in high-production shops, especially for imposed signatures. By being able to quickly check the imposition for obvious flaws you can prevent wasting time and material.

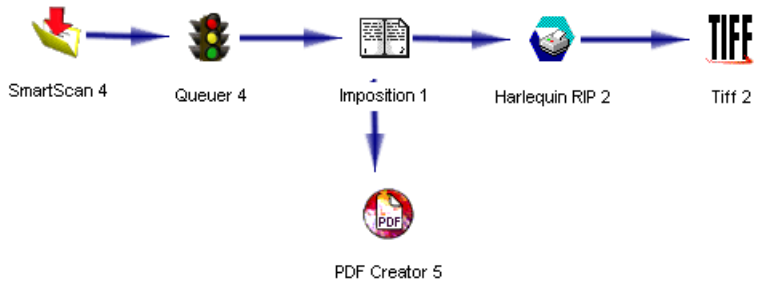


Figure 21.3 Example 3: PDF Creator used to create soft proofs

21.2 PDF Creator controls

To access the PDF Creator controls, right-click the PDF Creator module on the workspace to open a pop-up menu, as shown in Figure 21.4. From the menu all the module's configuration and viewing options can be accessed.

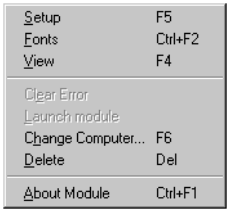


Figure 21.4 PDF Creator pop-up menu

The PDF Creator pop-up menu contains the following options:

Setup — Opens the Queuer setup dialog box where configuration options for the module can be specified. Section 21.3, "PDF Creator options" describes each available option.

Fonts Opens the Fonts dialog box where you can manage the fonts used in PDF files created by PDF Creator. See Section 21.4, “Fonts in PDF Creator” for more information on using and managing fonts in PDF Creator.

View Opens the PDF Creator Viewer, where job processing and log messages can be observed. See Section 21.5, “PDF Creator Viewer” for more information on the Viewer.

Other options in the menu are described in “Module shortcut menus” on page 18.

21.3 PDF Creator options

PDF Creator options are configured in the setup dialog box through the module’s pop-up menu, or by selecting the module and pressing **F5** on the keyboard. As with other modules, the various options are arranged into tabbed dialogs, described in the following subsections.

21.3.1 General

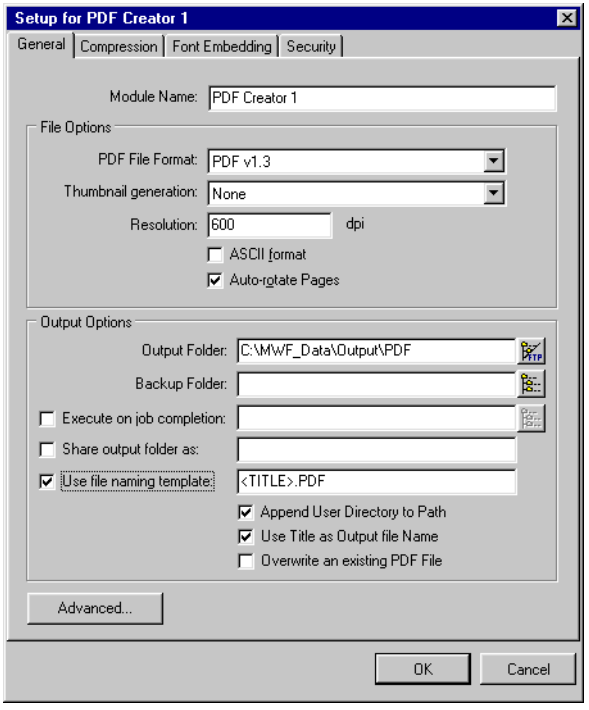


Figure 21.5 PDF module general settings

Module name

Allows you to enter a new name for the module. The module name is used wherever the module is referenced: on the workspace; in log files; when linking to and from other modules.

File options

PDF File Format

Selects the output format for the PDF files created by the module. The options are:

`PDF v1.2` PDF file can be read using Acrobat® Reader® 3.0.

`PDF v1.3` PDF file can be read using Acrobat® Reader® 4.0, and later.

Thumbnail generation

When selected this option causes PDF Creator to generate and embed thumbnail images of each page into the PDF. These thumbnails are used as a navigation aid in Acrobat Reader. It should be noted that Acrobat Reader 5.0 also generates thumbnails, although these are produced at the time the PDF is opened. Although embedding thumbnails results in slightly larger file sizes, it enables a faster redraw of the thumbnails in Acrobat Reader.

Resolution

Allows you to specify the resolution at which the job is rendered. This affects jobs which contain resolution-dependent (and therefore device-dependent) code. If your job contains pattern fills, the printer driver attempts to snap the pattern frequency to a sub-multiple of the device resolution. Some drawing packages also use the resolution (in conjunction with the halftone frequency) to calculate the number of steps to use for graduated fills. All other page elements should be unaffected by the resolution. If the PDF is intended for printing, you should set the resolution to be the same as the resolution of the intended final output device; otherwise, you should only change the resolution if you experience poor-quality output with pages containing patterns or graduated fills.

ASCII format

If this option is selected any binary data (including compressed text) in the PDF file is converted to a printable ASCII representation. This makes it safe to transmit your PDF pages over a medium that does not support binary transmission (e-mail for example). It should be noted that using ASCII format increases the size of your PDF file.

Auto-rotate Pages

When selected the module attempts to determine the orientation of the majority of the text on the page and rotates the page until this text is orientated upright. The PDF Creator module will always honor requests for landscape output, however, some Windows applications produce land-

scape output by rotating the output onto a portrait page. When printed out this is not a problem as the page can easily be rotated. However, when producing a PDF this leads to text running up the screen.

Output options

Output Folder

The Output folder is used to specify a directory for the finished PDF file. Enter the location directly into the text box or use the navigation button to the right to locate a folder.

Backup Folder

When a backup folder is specified a duplicate PDF of the processed file is created. This is an efficient method for producing copies of the output PDF since it occurs simultaneously as the file is processed.

The use of a backup folder is especially useful when there is a need to preserve the output PDF prior to it being sent for further processing. For example, you may have set up your workflows so that the output from one PDF Creator module becomes the input for another module, thereby destroying the original file. The backup folder preserves the original PDF file so that it may be used later.

Execute on job completion

You can use this section of the dialog box to define extra actions after the module has created each PDF file. To do this, you type text specifying a command and its options in a way similar to typing in a Windows command prompt window. The command can be a simple batch file or a complex application, provided that you can give the command all necessary options and information on the command line (a command needing operator interaction is likely to cause problems), and the application is available on the computer running MWF. For example, you can use such post processing commands to
e-mail the generated PDF to the user who submitted the job.

Select the **Post Processing** check box to enable a post-processing command and enter the command details in the adjacent text box. Optionally, you can supply substitution codes (as specified in Table 21.1) as well as options understood by the application.

The command string should normally include the file extension and the full path name of the application file. However, you can type just the file name if the command file has extension **.EXE** and is in one of the folders specified by the PATH variable.

Table 21.1 lists the substitution codes that can be used by the PDF Creator module.

Code	Meaning
%f	The output PDF file name, not including the full path.
%o	The full output directory path. For example: C:\S\PDF\.
%u	User name of the client who submitted the job. Defaults to Unknown if the user name is not known.
%d	Date the job was submitted for processing.
%n	The job name of the PDF file. This is not necessarily the same as the file name.

Table 21.1 Post processing substitution codes

Share output folder as

This feature allows you to publish the Output folder on your network as a shared resource. Select the check box and enter a name for the folder in the text box.

Use file naming template

This field allows you to specify a file naming template so that PDF files are named according to the tags that are specified. The following tags are supported:

- **<NAME>**—the job name, e.g. **jobname.ps**.
- **<COLOR>**—the color name, e.g. **Gray**, **Cyan**, **Magenta** etc.
- **<PAGE>**—the page number, e.g. **1**, **2** etc.
- **<TITLE>**—the name of the PostScript language file, without the **.ps** extension, e.g. **jobname**.

If you use the naming convention feature in the SmartScan module to create other tags with different field names, for example `name1`, you can also use these tags. To use tags created by the naming convention feature, you must precede them with `pg_`, for example, `<pg_name1>`. The prefix `pg_` and the field names are not case sensitive and can be in any order.

If an Imposition module is part of your workflow then the following standard tags are also available for use in a file name template:

- `<TIME>`—the time at which the file was processed, e.g. `153936` (approximately 3:39 pm).
- `<DATE>`—the date on which the file was processed, e.g. `20000412` for a file processed on the 4th of April, 2000.
- `<PLATE>`—the plate number, e.g. `01`.
- `<PROJECT>`—the project name, as specified in the Imposition module, e.g. `Project_0`.

These tags do not require a prefix and are *not* case sensitive.

Append User Directory to Path

For Windows clients, selecting this option directs the processed PDF documents into client folders within the designated PDF output folder, thus making it easy to locate the finished PDFs.

Note: This option is only available to Windows clients who submit jobs with a virtual printer. This feature is *not* implemented for Macintosh clients.

Use Title as Output file Name

When this check box is selected PDFs are created using the same name as the submitted job name. When not selected a PDF is created with an arbitrary name, assigned by PDF Creator.

Overwrite an existing PDF file

Select this check box if you wish to overwrite any PDF in the output folder that has the same name as the newly created PDF. Deselect the box if you want to stop PDF Creator overwriting existing PDFs.

21.3.2 Advanced

Click **Advanced** in the General dialog box to access the Advanced options, as shown in Figure 21.6. These options generally apply to prepress environments.

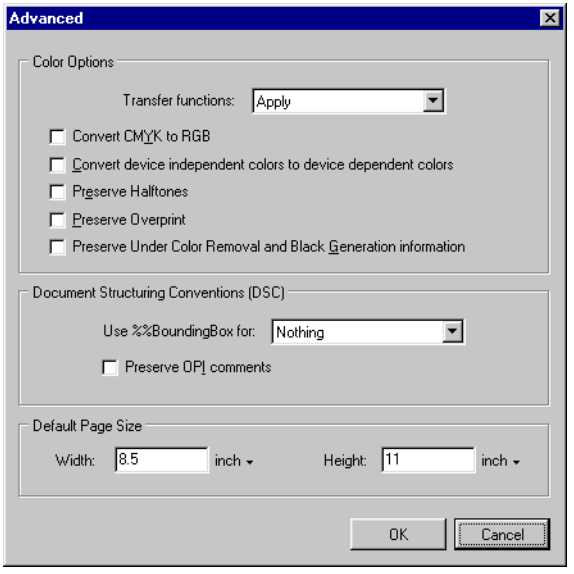


Figure 21.6 PDF module advanced settings

Transfer functions

Provides options for preserving, applying or removing transfer functions from the PostScript language file. The options are as follows:

`Apply`	The document is displayed the same on-screen as when printed.
`Preserve`	Transfer functions are preserved in the PDF file.
`Remove`	Transfer functions are removed in the PDF file.

Convert CMYK to RGB

This option affects any color images that are present in the job. When enabled, any four-color CMYK images in the job are converted to RGB images in the PDF. This may result in a smaller PDF file that displays on-

screen more quickly. You should enable this if your documents are intended for on-screen viewing, but disable it if the PDF is destined for printing.

Convert device independent colors to device dependent colors

Enabling this option can cause an apparent color shift in the images to which it is applied. The conversion that PDF Creator uses is better suited to photographic images than to CMYK approximations of spot colors. You may find that on-screen reproduction of some graduated fills and tinted images is better with this option disabled than with it enabled.

With this option selected, PDF Creator converts colors specified in device-independent CIE-based color spaces into device-dependent RGB. This produces PDF files which display more quickly. Otherwise, these colors are converted into a device-independent calibrated RGB color space. This produces PDF files which render more slowly, but whose colors are more constant across properly set up output devices.

Preserve Halftones

With this option selected, any halftone changes requested by the job are passed through to the PDF file. You should select this option when producing PDF files for print, and disable it when producing PDF files for on-screen viewing.

Preserve Overprint

When this option is selected, any overprint parameters relating to graphics in the original PostScript language file are passed through to the PDF file.

Preserve Under Color Removal and Black Generation information

Select this option if you want to preserve under-color removal from the PostScript language file. This is normally only used in pre-press environments.

Document Structuring Conventions (DSC)

Use %%Bounding Box for

As well as the conventional page size request embedded in the PostScript language file, many files also contain comments describing the actual extent of marks on the page. The options are as follows:

`Nothing`	Lets you ignore comments.
`Page Size`	Use the bounding box for the PDF page size.
`Crop box`	Use the bounding box for the optional page cropping box. Acrobat Reader always displays pages as if they were the size specified for the page cropping box. Some applications may generate their own cropping box information using `pdfmark`, which overrides any cropping box set in this way.

Preserve OPI comments

OPI (Open Prepress Interface) is used to reduce network traffic by substituting high-resolution images with low-resolution screen images for the purpose of screen display and page make-up—often called *FPO* (For Position Only). Select the check box to apply the OPI comments stored within the PostScript language file. OPI comments in the PostScript language input file are reproduced as OPI dictionaries in the PDF output.

It is not necessary for the high-resolution image data to be available to PDF Creator since it passes the file name through to the output. PDF Creator produces only an OPI 1.3 dictionary, only an OPI 2 dictionary, or both, depending on whether the PostScript language file input uses one or both versions of the OPI comments.

Default Page size

The width and height boxes let you to specify the default page size for the PDF page. It should be noted that these values are only effective when the file does *not* already contain page size information. In general, PostScript language files and TIFF files *do* contain page size information,

so the values entered here have no effect on the printed page size for these file types. Choose the unit of measurement from the drop-down list.

21.3.3 Compression

The Compression tab provides options for the output format of images from the PDF Creator module. This option handles images in three different categories: Color, Grayscale, and Monochrome. Also provided are options to resample images in all three categories using subsampling, average downsampling or bicubic resampling.

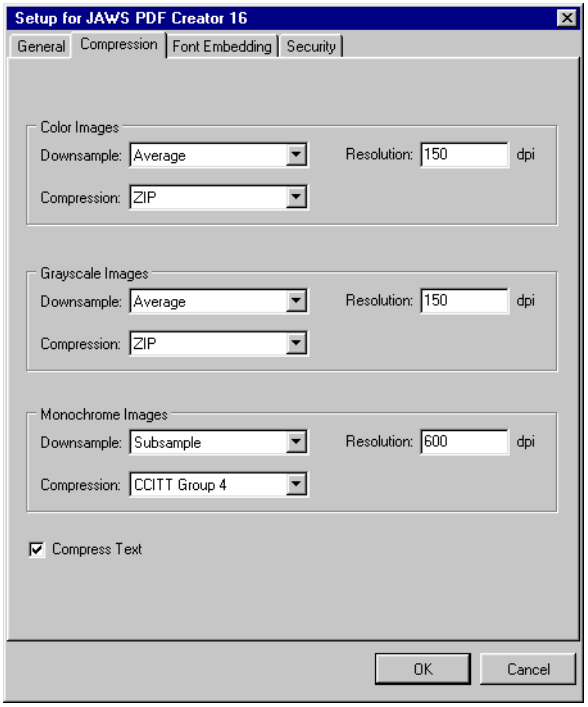


Figure 21.7 PDF module compression settings

Downsample

The downsampling options determine how images in the document are handled. Using the options you can control downsampling for color, grayscale and monochrome images, independently of each other. The downsample options are as follows:

Subsampling

Removes and discards vital information from the image as it recalculates the image resolution. This can sometimes affect color integrity, smoothness of tones and type. Subsampling is an effective method for making documents web ready.

Average downsampling

Takes an average number of dots-per-inch and re-samples the image.

Bicubic

Reduces the resolution by performing bicubic interpolation to generate new pixel values. This option can generate more pleasing results, though the PDF file will be slower to generate. Bicubic is not available with monochrome images.

Compression

Compression squeezes the image into a smaller package. It calculates how to fit twice as much information (sometimes more) into a smaller package. Unlike subsampling, most compression algorithms do not discard valuable information (JPEG being an exception). Therefore, compression is an effective way to manage file sizes on disk for press quality documents.

You can control compression for color, grayscale and monochrome images, independently of each other. The compression options are as follows:

ZIP The ZIP filter uses a lossless compression technique and normally produces good compression ratios.

`JPEG` The JPEG filter uses a lossy algorithm (which irretrievably discards data), but it produces excellent compression ratios on photographic images. When JPEG compression is selected you have the option to select one of the options from the **Quality** menu.

`CCITT G4` The CCITT G4 filter uses standard fax compression, and is only applicable to bitmap images.

Resolution

If you have enabled downsampling this option lets you specify the target resolution of the reduced images embedded in the PDF file. Typical resolution settings that you might employ for three types of PDF documents are: 72 dpi for screen and web-friendly PDFs; 600 dpi for printable documents, for example on an office laser printer; 2400 dpi for commercial quality, press-ready printing.

Compress text

Select this check box to compress text.

21.3.4 Font Embedding

This dialog box provides options for embedding text character sets (fonts), font substitution and using TrueType fonts in the PDF documents generated by PDF Creator.

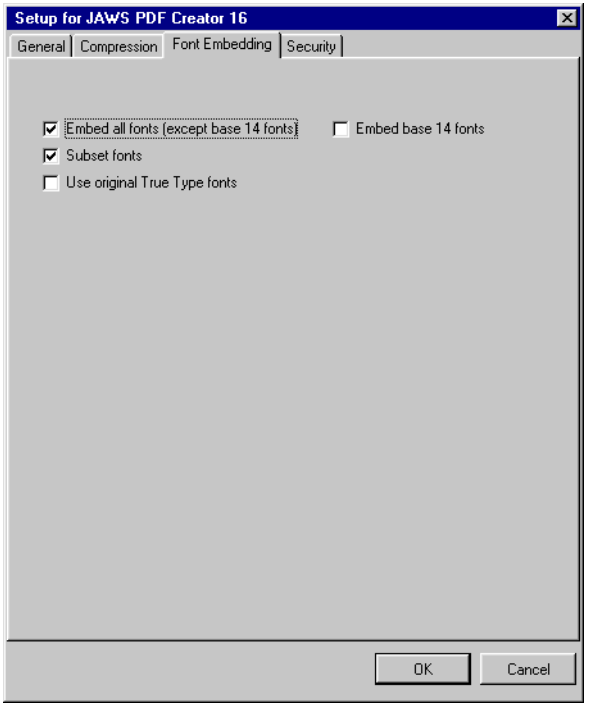


Figure 21.8 Fonts tab

Embed all fonts (except base 14 fonts)

With this option selected fonts used in the original document are embedded in the PDF document. This means text in the document can be displayed correctly (with no font substitution) on whichever machine views the document.

With this option selected all characteristics for the *entire* font *family* are included in the PDF file. For example, your page may only call for "Helvetica - Regular" but since it is part of a family—which also includes bold, italic, black, condensed and compressed—the information

for all font variations are embedded in the PDF document, thereby increasing the overall file size. To limit the increase in file size, you should consider selecting **Subset all fonts**.

Embed base 14 fonts

If this is selected, all base 14 fonts present in the document are embedded in the output PDF file. Selecting this option implicitly adds the base 14 fonts to the **Always embed** list.

Subset all fonts

With this option selected, only subsets of the original fonts are embedded in the PDF file. This is the preferred setting, since it leads to smaller files. However, since not all members of the font family are available in the PDF, selecting this may inhibit you from cutting and pasting text, and prevent a reader from editing text in the PDF. For example, if your page calls for "Helvetica - Regular", the bold, italic, black, condensed, and compressed variations of the font will *not* be embedded in the PDF file and, consequently, it may not be possible to edit this text on a users machine unless they already have the font installed.

Use original True Type fonts

This option prevents the module from trying to substitute similar looking (but not exactly the same) Type 1 fonts.

21.3.5 Security

The Security tab options (Figure 21.9) enable security features in generated PDF documents. There are several options available that provide varying levels of protection for documents.

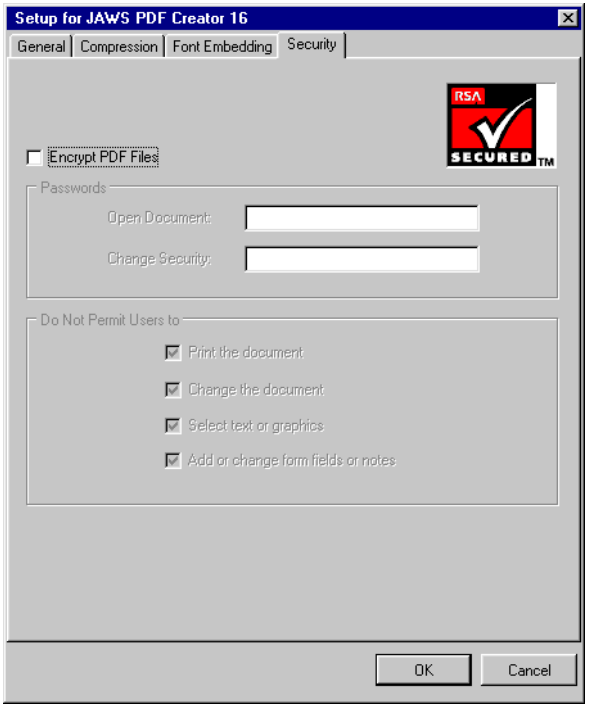


Figure 21.9 PDF module security settings

Encrypt PDF Files

Select this check box to enable security features in the PDF document.

Open document

This text box allows you to specify a password which must be entered before the document can be opened. The user will be prompted for this password when the document is opened.

Change security

This text box allows you to specify a password that a user must enter before security changes can be made to the PDF document. You may also use this password to open the document.

Note: It is not possible to open a password protected document without entering either the **Open Document** password or the **Change Security** password. Because of this, you should always keep a secure record of these passwords.

The other options in the Security dialog box can be used to control the ability of the user to change, add comments or print the document. Select the appropriate check box to restrict the reader of the PDF from using that feature.

21.4 Fonts in PDF Creator

PDF Creator maintains a list of fonts that it can embed and substitute in the PDF documents it creates. To access the fonts list, right-click a PDF Creator module and choose Fonts from the pop-up window, to open the Fonts dialog box, shown in Figure 21.10. Using the controls in this window you may add and remove fonts, and determine how fonts will be substituted in PDF documents that are generated.

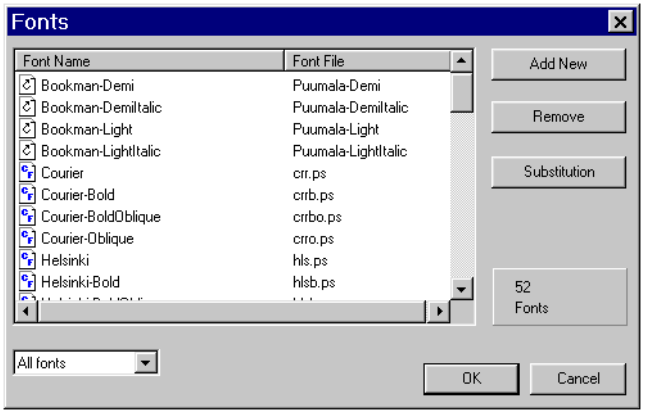


Figure 21.10 Fonts list window

This dialog lets you manage both Type 1 fonts (also known as ATM fonts or PFB format fonts) and TrueType fonts. The core fonts that are installed with PDF Creator are listed in red and may not be removed. The core font set includes clones of the 35 standard PostScript language compatible printer fonts, as well as stub files which refer to them. For example, Helvetica is one of the standard fonts, but the font file for Helvetica is just a stub that substitutes the clone font Helsinki instead.

Use the pull-down menu in the lower left corner of the dialog to select the type of fonts to be viewed. The All fonts option displays all the installed fonts.

Add New

To add fonts to the list click **Add New.** The Add Fonts window opens (Figure 21.11) from where you can browse to the font folder and choose which fonts to install. After restarting the PDF Creator module, the fonts will be available in the master fonts list and can be used in your documents.

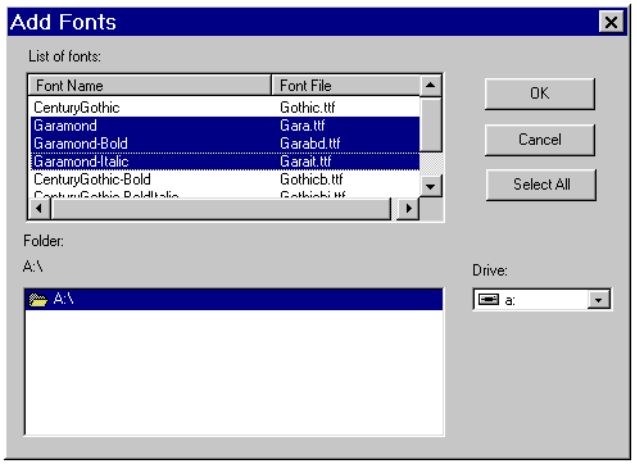


Figure 21.11 Add fonts window

Remove

Use the **Remove** button to delete selected fonts from the master fonts list. Fonts which have been removed cannot be embedded or substituted in the document. To remove fonts from the list select the items first and then click **Remove**.

Substitution

This option allows you to select which fonts will be substituted (swapped) in the document. Generally, it is preferable to use the exact font that was used in the design of the document. However, there are times when this is not possible; a font may be corrupt; or the original font may not have been sent with the original file. In such cases the only solution is to substitute with a font that is very similar in design to the original specified font.

If substitution were not available, the PDF module would do one of two things: error and refuse to produce the job or substitute a default font that is not even close to the way it should look. Either result is unacceptable.

One solution is to open up all the pages in the original application program and search and replace every occurrence of the problem font. This is not ideal as it is time consuming; you may not have the original application and if you miss one or two occurrences where the font was used the processing time would be wasted.

Having the PDF module offer to do the substitution for you "on the fly" is the best solution because all occurrences are guaranteed to be substituted.

In the Fonts window click the **Select** button to open the Create font substitution dialog box (Figure 21.12).

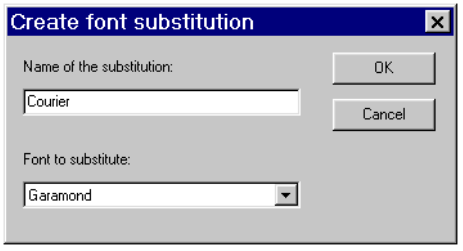


Figure 21.12 Create font substitution dialog box

Name of substitution

Enter the name of the font to substitute (swap out) from the document.

Font to substitute

From the menu choose the font that you want to substitute with (swap in). The fonts in the menu are compiled from the master fonts list.

21.5 PDF Creator Viewer

The Viewer window, shown in Figure 21.13, lists all the jobs that have been processed by the PDF Creator module, as well as a list of messages generated by the module.

To access the Viewer, double-click the PDF Creator module or right-click it and choose **View** from the pop-up menu.

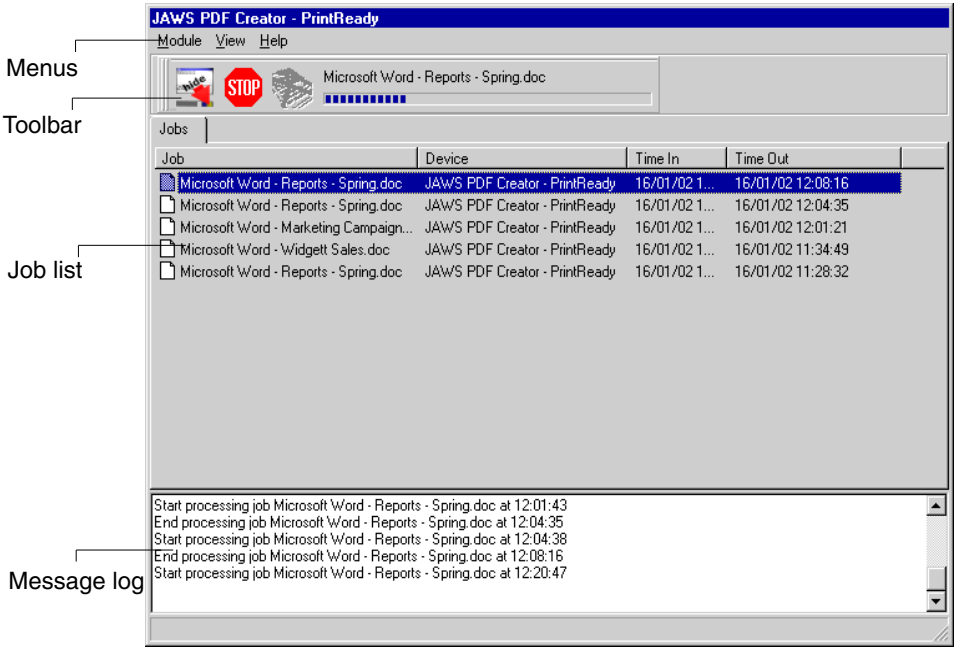

Menus
Toolbar
Job list
Message log
JAWS PDF Creator - PrintReady
Module View Help
Microsoft Word - Reports - Spring.doc
Jobs
Job
Device
Time In
Time Out
Microsoft Word - Reports - Spring.doc JAWS PDF Creator - PrintReady 16/01/02 1... 16/01/02 12:08:16
Microsoft Word - Reports - Spring.doc JAWS PDF Creator - PrintReady 16/01/02 1... 16/01/02 12:04:35
Microsoft Word - Marketing Campaign... JAWS PDF Creator - PrintReady 16/01/02 1... 16/01/02 12:01:21
Microsoft Word - Widgett Sales.doc JAWS PDF Creator - PrintReady 16/01/02 1... 16/01/02 11:34:49
Microsoft Word - Reports - Spring.doc JAWS PDF Creator - PrintReady 16/01/02 1... 16/01/02 11:28:32
Start processing job Microsoft Word - Reports - Spring.doc at 12:01:43
End processing job Microsoft Word - Reports - Spring.doc at 12:04:35
Start processing job Microsoft Word - Reports - Spring.doc at 12:04:38
End processing job Microsoft Word - Reports - Spring.doc at 12:08:16
Start processing job Microsoft Word - Reports - Spring.doc at 12:20:47

Figure 21.13 PDF Creator Viewer

The features of the Viewer are described next.

21.5.1 Menus

The Menu items are used to access the various options in the Viewer.

Module > Start /Stop

Stops and starts the module. In MWF a module must be started before it can process jobs. Stopping a module ceases all job processing, furthermore, no jobs may be sent to the module whilst the module is stopped.

You can also start/stop a module using the **Start/Stop** button on the toolbar.

Module > Abort job

This command immediately stops a module from any further processing on the current job. The job is abandoned and processing continues with the next job.

Module > Setup

Choosing this option opens the PDF Creator Setup dialog box where module options are configured. The options in this dialog box control all configurable aspects associated with the PDF document such as resolution, font embedding and security, as well as output and backup folder locations. The PDF Creator Setup dialog box is described in “PDF Creator options” on page 284.

You can also access the setup command by pressing **F5**.

Module > Shutdown

This command shuts down the PDF Creator module on the workspace. When a module has been shut down the module appears disabled on the workspace and its icon is remove from the Windows’ System Tray. The module

code is also removed from system memory. It may be necessary to shut down a module if the system becomes unstable, or if a system access violation error occurs.

To re-launch the module, right-click it on the workspace and choose **Launch module** from the pop-up menu.

View > Hide window

This menu item closes the Viewer.

View > Toolbar

This command shows/hides the toolbar. The toolbar tools are described next.

21.5.2 PDF Creator toolbar

The PDF Creator Viewer toolbar contains tools for the most commonly used commands in the Viewer. The toolbar is usually anchored at the top of the Viewer, but it can be pushed off and become free-floating on the desktop. Push the toolbar at its edges to detach it. To place it back in the Viewer, move the toolbar into the Viewer, just under the menus, and release.





Hide

Use this tool to hide the Module View window when the toolbar is anchored, or to show/hide the View list when the toolbar is detached.





Start / Stop

Use this tool to start and stop modules. A module must be started in a workflow before it is allowed to process jobs. The button icon shows the current active state of the module, so that when the control shows 

the module is started.



Abort job

Use this tool to abort the current job in progress. The tool only becomes active when a large enough file is being processed, otherwise the tool remains disabled.

21.5.3 Devices tab

Click the Devices tab to see a list of all PDF Creator modules on the workspace. The headings in the devices list are as follows:

Name The name of the PDF Creator module. Configured in the PDF Creator Setup dialog box, see page "Module name" on page 285.

Status The current active status of the modules, this may be *Idle* or *Busy*.

Log Indicates if the message log feature has been enabled. Messages are appended to the file `MWF.LOG`, whose location is determined by the settings in the Manager options dialog box, see "Manager options" on page 14.

Paused Indicates the current stop/start situation of modules. A module must be started before it can receive and process jobs.

21.5.4 Jobs tab

Select a module from the Device tab and then click the Jobs tab to see a list of jobs that have passed through that module. The headings in the Jobs tab are as follows:

Job Lists jobs that have been processed by a module.

Device Name of the PDF Creator module that processed the job.

Time In Exact time the PDF Creator module started processing the job.

Time Out Exact time the PDF Creator module stopped processing the job.

21.5.5 Message log

The View log area of the View window displays messages generated by the module. A message is generated whenever the module is started or stopped, when a job is processed or when an error occurs. These messages allow you to observe job throughput and to help resolve problems. You can also output these messages to a log file so they can be viewed later in a text editor. The Message log tool, described in “Message log” on page 306, provides details on how to do this.

22

Common Controls for the Output Modules

In addition to the SmartScan module, which acts as an input mechanism for the workflow, every workflow must also contain at least one output module so jobs can be finished. As you would expect, MWF contains a wide selection of output modules: from printers, plotters, imagesetters and presses, to image formats and PDF file types.

Most of these modules share a common set of output controls that control page set up, color management, device screening and calibration profiles. This chapter describes each of these controls.

22.1 Page set up options

The page set options for the output modules are accessible in the Page tab, as shown in Figure 22.1.

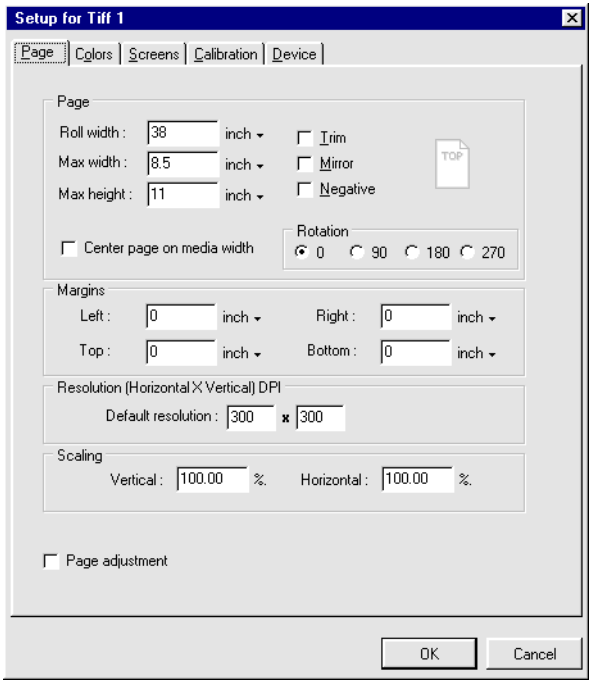


Figure 22.1 Page tab

The options generally comprise of media and page size options, output options, resolution options, and scaling options, and each are described in the following subsections.

22.1.1 Media and page size options

Roll Width

If you are using media on a roll, enter its width in the text box using the units from specified in the adjacent drop-down list.

Max width

Enter the maximum page width allowed for jobs. Normally a job sets its own page size but if your job exceeds this setting, then **Page adjustment**, when selected, will automatically resize the page proportionally to fit this max width value. Choose the units of measurement from the menu alongside this text box.

Max height

Enter the maximum page height allowed for jobs. Normally a job sets its own page size but if your job exceeds this setting, then **Page adjustment**, when selected, will automatically resize the page proportionally to fit this max height value. Choose the units of measurement from the menu alongside this text box.

22.1.2 Output options

The output options that you choose are reflected by the page icon in this section. For example, if you select the **90** degrees **Rotation** radio button, the page icon is rotated by 90 degrees.

Trim

Select this check box to trim any white space off the top and bottom of each page.

Note: If you are sending output to a sheet-fed device, such as a typical laser printer, using **Trim** does not save media and is very likely to alter the registration between pages, for example, when the content of those pages has a variable outline. By default this option is not selected.

Mirror

Select this check box to produce a mirrored image which is reflected about the vertical axis. If the job being sent was already reflected, selecting the **Mirror** option cancels this out, giving a non-mirrored image. This control allows you to undo the settings required by some print shops that the job be provided ready for film or plate. By default this option is not selected.

Negative

Select this check box to produce the page in negative. If the job was already in negative (that is, a negative image is defined in the page description), the two negatives cancel each other out, giving positive output. This provides a mechanism to reverse a photographic image produced on acetate-based film (a film negative) or photosensitive, resin-coated paper (a paper negative). On a black-and-white negative, white images become black and black images become white; on color negatives, each tone value is reversed. By default this option is not selected.

Center Page on media width

Select this check box to have the output centered across the width of the media. By default this option is not selected.

Rotation

Select the appropriate radio button to rotate each page of the job by either **0** (default setting), **90**, **180** or **270** degrees. The image itself remains unchanged. If the job was already set to rotate in the opposite direction, the two rotations cancel, giving non-rotated output. Similarly, if the job rotates in the same direction, the two rotations add.

22.1.3 Resolution options

Default resolution

Depending on the output module, you can either select a resolution setting from a menu (where the resolution settings supported by the output device are known), or you can specify the **Horizontal** and **Vertical** dpi in two text boxes.

22.1.4 Scaling options

Scaling

You may not always want to print your job at its original size. The **Vertical** and **Horizontal** scaling text boxes allow you to print out any job at a specified scale. This changes the page size. All scales are expressed as a percentage of the original size. Thus, to print out a copy of a job at half the linear size, specify `50` in both the horizontal and vertical scaling text

boxes. To print it out at twice the size, specify `200`. You can specify different horizontal and vertical scales if you wish. Note that the aspect ratio of the image changes unless the values in the horizontal and vertical scaling boxes are the same.

Page adjustment

Select this check box to resize the page proportionally to fit the **Max width** and **Max height** values, as described in "Media and page size options" on page 308. By default this option is not selected.

22.2 Color management options

The options to control color management in the output module are accessible in the Colors tab, as shown in Figure 22.2.

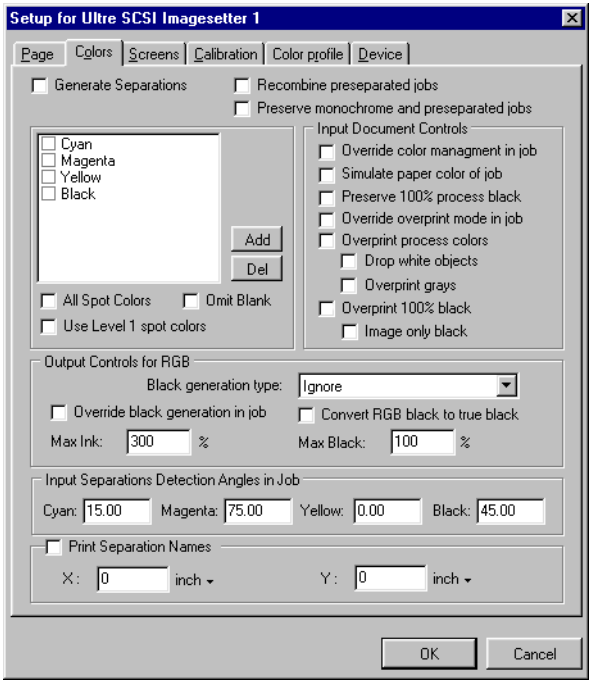


Figure 22.2 Colors tab

Each option is described in the following subsections.

22.2.1 Color Separation options

Generate Separations

Select this check box to produce color separations. The **Color Format** value in the Device tab must be set to `MonoChrome` to use this option. When selected, process color separations will be created by default, as listed in the separations list. You can select or deselect the check box next to listed separations, to determine whether they are generated. You must select at least one process separation. A warning dialog box appears if you try to deselect all the process color separations.

Recombine preseparated jobs

Select this check box to recombine preseparated jobs. Recombining may be useful or necessary in a variety of cases: for example, when proofing on a full-color device or retargeting from one kind of final output device to another kind.

Add

Click this button to add a spot color separation. A New Color dialog opens, in which you must enter the name of the spot color. The name you enter for the spot color must match the one used in the job in every respect: upper and lower case, use of embedded space characters and any trailing `CV` or `CU` suffixes. For example, a typical Pantone specification is `PANTONE 386 CV` but applications may report this in different ways. A warning dialog appears if you attempt to create separations with the same name.

Del

Click this button to delete the selected spot color separation. The separation disappears from the list. You cannot delete process color separations.

All Spot Colors

Select this check box to produce separations for all spot colors found in a job.

Omit Blank

Select this check box to ensure that blank separations are not output. This prevents you from wasting media.

Use level 1 spot colors

Spot color support is not a standard part of the PostScript LanguageLevel 1 specification. It is a widely used convention that was defined later. If you wish to produce spot colors using PostScript LanguageLevel 1, select this box. This check box has an effect only when producing spot colors.

22.2.2 Input document controls

.

Override color management in job

Select this check box to override the color management in the job and use the options set in the Color profile tab. If you do not check this box, MWF uses a color space array, embedded ICC profile, or a color space resource, if found in the job, to transform the image and treats the image as a color-independent color image.

Preserve 100% process black

Select this check box if you do not want the black-only part of your input to be converted to a CMYK-equivalent color. This option is particularly relevant for black text because it avoids colored fringes.

Overprint process colors

If this check box is selected and overprinting is switched on for an object, MWF will print dots of one process color over the dots of another to produce a secondary color that is a combination of the primary colors. If this check box is not selected, such a process color component produces a knockout on the separation.

Drop white objects

If this check box is selected, white objects will disappear from separations. If this check box is not selected, the white object knocks out underlying objects, even when overprinting is switched on. By default, this option is not selected. This option is only available when the **Overprint process colors** check box is selected.

Overprint grays

Select this check box to allow the Cyan, Magenta, and Yellow colorants to be overprinted rather than knocked out when a color is specified as gray and the job requests overprinting.

Overprint 100% black

If this check box is selected, MWF overprints 100% black rather then generating knockouts in the other separations. When selected, overprinting occurs regardless of whether overprinting is switched on for that graphics object or not. How the overprinting of the other separations is done depends on the **Image only black** option.

Image only black

This check box controls whether solid black objects appear in the process color separations (CMY) when the **Overprint 100% black** option is selected. If this check box is selected, MWF will ignore the other process color components of black objects and no trace of the objects appears in those separations. If this check box is not selected, the other process color components are taken into account.

22.2.3 Output controls for RGB

The options here are used when generating color separations. Color separation is based on the principle of translating the three additive colors – red, green and blue into their subtractive counterparts: cyan, magenta, and yellow. In theory, equal parts of cyan, magenta, and yellow combine to subtract all light and create black. Due to impurities present in all printing inks, however, a mix of these colors instead yields a muddy brown. To compensate for this deficiency in the color separation process, printers remove some cyan, magenta, and yellow in areas where the three colors overlap and add black ink.

Prepress operators typically use one of two "styles" of color translation: under-color removal (UCR) or gray component replacement (GCR). In UCR, the black plate is used to add depth to shadow areas and to neutral colors. In GCR, more black ink is used over a wider range of colors. GCR separations tend to reproduce dark, saturated colors somewhat better than UCR separations, and maintain gray balance better on press. The type of separation you should use is determined by the paper stock you are using and the requirements of the press.

Black generation type

Select a black generation type from this menu. For GCR separations, choose one of the GCR levels in Figure 22.3 and set ink limits. For UCR separations, select `UCR` and set ink limits.

Type	Description
`Ignore`	No color translation resulting in an RGB error.
`None`	(GCR level). Generates the color separation using no black plate.
`Light`	(GCR level). Slightly decreases the effect of the Medium setting.
`Medium`	(GCR level). Produces satisfactory results in most cases. Use as the default setting.
`Heavy`	(GCR level). Slightly increases the effect of the Medium setting.
`Maximum`	(GCR level). Maps the gray value directly to the black generation value. This option is useful for images that contain a large amount of solid black against a light background, such as screen shots from a computer.
`UCR`	Select if you wish to use under-color removal color translation.

Figure 22.3 Black generation types

Override black generation in job

Select this check box to override GCR or UCR settings specified in the job.

Convert RGB black to true black

Some applications, and especially Microsoft® Word, use RGB colors for everything, including solid black—coded as `0 0 0 setrgbcolor` (or `0 0 0` in a `DeviceRGB` color space). You should choose this option to force the RIP to intercept blacks coded in this way and convert them to (`0 0 0 1` in) a CMYK color space.

Max Ink...%

Enter as a percentage the total ink limit or Total Area Coverage (TAC) supported by the press. The default is 300% and is used for UCR and GCR.

Max Black...%

Enter as a percent the black ink limit supported by the press. The default is 100% and is used for UCR and GCR.

22.2.4 Separation naming options

Print Separation Names

Select this check box to print the color name on separations. You must specify where the color name is printed using the `X` and `Y` coordinate values.

X

Enter a value specifying a coordinate on the X axis of the page where the separation name must be printed. Choose the units of measurement from the menu alongside this text box. This value is only used if the **Print Separation Names** check box is selected.

Y

Enter a value specifying a coordinate on the Y axis of the page where the separation name must be printed. Choose the units of measurement from the menu alongside this text box. This value is only used if the **Print Separation Names** check box is selected.

22.3 Halftone screening options

If your output module supports halftone screening, the options for screening control are accessible in the Screens tab, as shown in Figure 22.4.

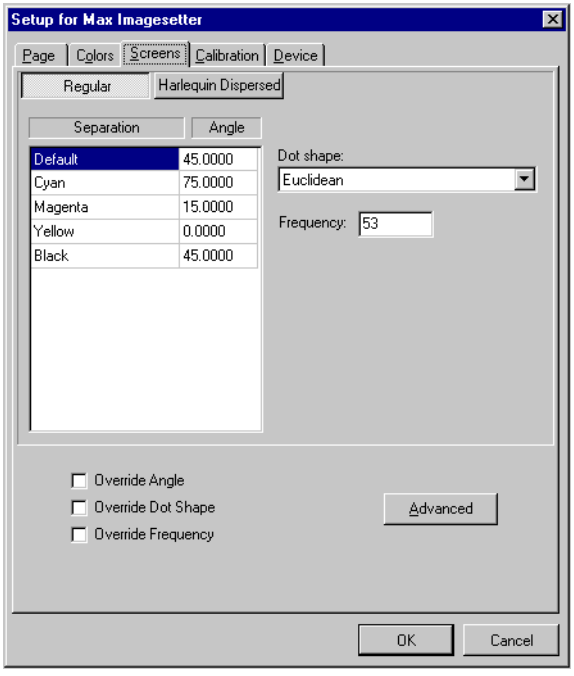


Figure 22.4 Screens tab

The options generally comprise of regular screening, Harlequin Dispersed Screening, and Harlequin Precision Screening. Each method is described in the following subsections.

22.3.1 Regular screening options

If you click **Regular** in the Screens tab, you can set the options for regular screening. To use Harlequin Dispersed Screening, you must supply a password, as described in Section 22.3.2 on page 319.

Separation

This column in the separations list displays the name of the separation. You can use the Colors tab to add spot color separations, as described on page 312.

Angle

Enter the screen angles that you wish to use for the listed separations. If the job contains embedded screen angle information, you must select the **Override Angle** check box to use your own screen angles. The ability to override screen angles is especially useful if the job has requested a set of angles that optimize the output quality for a particular output device, such as a laser printer, but may diminish the quality on other devices, such as an imagesetter.

Dot shape

The dot shape that you choose from this menu can greatly influence the amount of dot gain in an image. MWF offers a variety of dot shapes; your choice between them might depend on the output device, resolution and media used, and the type of image.

Jobs often contain embedded information regarding dot shape. To force MWF to use your chosen dot shape instead, select the **Override Dot Shape** check box.

Frequency

Another way to improve the quality of halftoning is to increase the *halftone frequency*, the density with which the image is covered by halftone cells. Frequency is usually referred to as *lpi* (lines per inch) and has reference to the number of halftone dots that can be counted in an inch of space. The higher the lpi value, the smoother the resulting picture looks. Increasing the frequency is rather like increasing the resolution of an image: more dots are produced and each dot is smaller. However, the more you increase the frequency, the fewer gray levels you can print. Conversely, the higher the frequency, the smoother the step between each gray level. You can override this effect by using Harlequin Precision Screening (HPS) to manually set the number of grays in the job, as described in Section 22.3.3 on page 321.

Jobs often contain embedded information regarding halftone frequency. To force MWF to use your screen frequency instead, select the **Override Frequency** check box.

Override Angle

Select this check box to use the screen angles specified in the Screens tab instead of any angles specified in the job.

Override Dot Shape

Select this check box to use the dot shape specified in the Screens tab instead of the dot shape specified in the job.

Override Frequency

Select this check box to use the halftone frequency specified in the Screens tab instead of the frequency specified in the job.

Advanced

Click this button to use Harlequin Precision Screening, which allows you to add extra gray levels to your job, as described in Section 22.3.3 on page 321.

22.3.2 Harlequin Dispersed Screening options

If you click **Harlequin Dispersed** in the Screens tab, you can choose the type of HDS screening that you wish to use.

Note: This feature is a purchasable option. When licensed, a password is provided for activation.

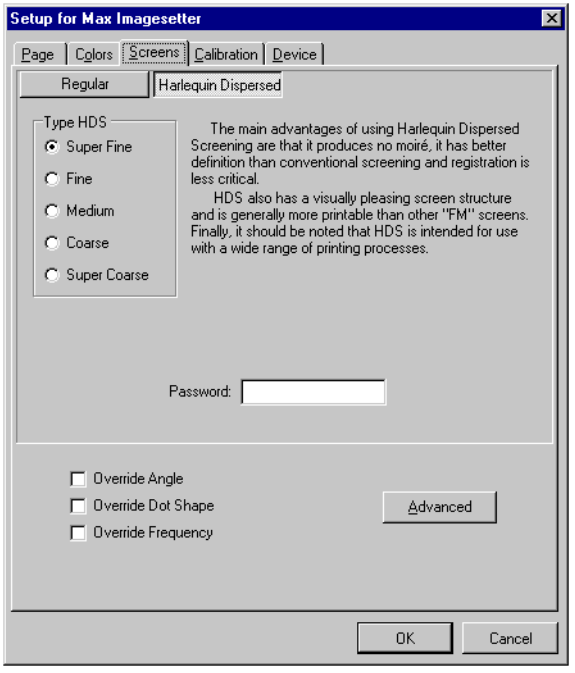

Setup for Max Imagesetter
Page
Colors
Screens
Calibration
Device
Regular
Harlequin Dispersed
Type HDS
Super Fine
Fine
Medium
Coarse
Super Coarse
The main advantages of using Harlequin Dispersed Screening are that it produces no moiré, it has better definition than conventional screening and registration is less critical.
HDS also has a visually pleasing screen structure and is generally more printable than other "FM" screens. Finally, it should be noted that HDS is intended for use with a wide range of printing processes.
Password:
Override Angle
Override Dot Shape
Override Frequency
Advanced
OK
Cancel

Figure 22.5 Harlequin Dispersed Screening options

The main advantages of using Harlequin Dispersed Screening (HDS) are that it produces no moiré effect, it has better definition than conventional screening and registration is less critical.

HDS also has a visually pleasing screen structure and is generally more printable than other “FM” (frequency modulated) screens (also known as stochastic screening). Finally, it should be noted that HDS is intended for use with a wide range of printing processes.

Type HDS

Once you have entered a valid password to enable the use of HDS screening, you can choose a particular type of HDS screening. The finer HDS screens are best used with high quality imagesetters capable of holding single laser spots. The coarser HDS screens are best selected on presses which cannot hold very fine detail, such as high speed web-

offset presses. The physical size of the HDS dot created with each of these options varies both with the imagesetter laser spot size, and with the resolution at which it is driven. **HDS Super Coarse** is designed to be suitable for use in newsprint applications on imagesetters at mid-range resolutions, that is 1000 through 1600 dots per inch (dpi). **HDS Super Fine** is designed for output devices where final copy is produced directly: for example, laser or inkjet printers.

However, since output proofing devices vary widely in their methods of ink laydown, it is suggested that testing be done on a couple of different settings to ensure the best proof possible. **HDS Super Fine** may work well on grayscale/color halftones and yet not work well on copy containing fine line drawings.

Password

You must enter a valid password in this text box to enable the use of HDS screening.

Override Angle

Select this check box to use the HDS screen angles instead of any angles specified in the job.

Override Dot Shape

Select this check box to use the HDS dot shape instead of the dot shape specified in the job.

Override Frequency

Select this check box to use the halftone frequency required by HDS instead of the frequency specified in the job.

Advanced

Click this button to use Harlequin Precision Screening, which allows you to add extra gray levels to your job, as described in Section 22.3.3 on page 321.

22.3.3 Harlequin Precision Screening options

For very high quality output you can use Harlequin Precision Screening (HPS). This is a proprietary feature which eliminates objectionable moiré patterning when producing color separations. HPS can be used with both regular

and HDS screening. HPS also allows you to choose how rosettes are formed in the image, and to generate extra gray levels, allowing the use of higher screen frequencies than the resolution would normally allow. Once correctly set up (and with sufficient memory available), output can be produced with HPS at speeds comparable to those obtained when using traditional lower quality rational tangent screening.

HPS has been designed for automatic operation, and it overrides any bad settings in the job automatically. This is especially useful for print bureaus, who often receive PostScript language code that is not set up for high quality screening.

To use HPS, click **Advanced** in the Screens tab. The Advanced Options dialog box opens.

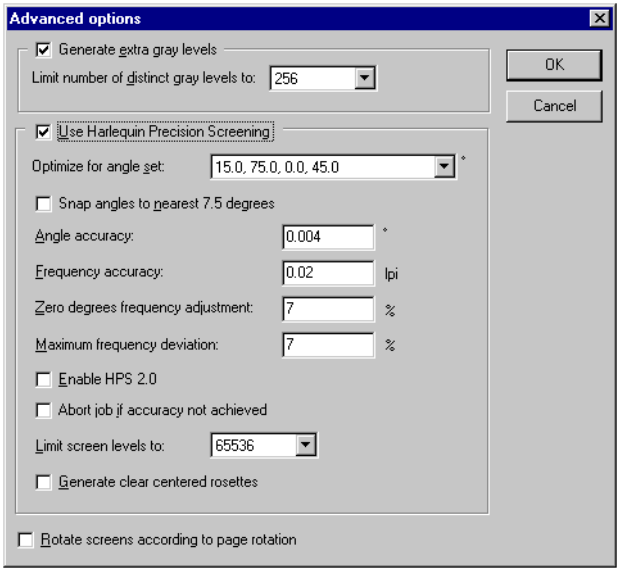


Figure 22.6 Harlequin Precision Screening options

The options in the Advanced options dialog fall into categories—extra gray levels options, and angle and frequency options—as described in the following subsections.

22.3.3.1 Extra gray levels options

The ability to generate extra gray levels is a very powerful feature of HPS. It allows you to use more gray levels in your job than are normally available with regular or HDS screening. This has particular benefits in eliminating stepping in vignettes and avoiding posterization.

Generate extra gray levels

Select this check box to use HPS to generate extra gray levels. You can choose the number of gray levels from the **Limit number of ...gray levels...** menu.

Limit number of distinct gray levels to

Choose the exact number of gray levels that you wish to use from this menu. This menu is disabled when **Generate extra gray levels** is not selected.

22.3.3.2 Angle and frequency options

When using HPS, for each screen in a job, the RIP process calculates the best set of screen angles and frequencies to use for the set requested. The settings you choose in this section determine how the screen angles and frequencies are calculated.

Use Harlequin Precision Screening

Select this check box to use Harlequin Precision Screening. All the options in this section of the dialog box are disabled until you select this check box.

Optimize for angle set

It is possible to reduce the amount of memory required by HPS if you can give some guidance to the software about which screen angle sets are to be used in PostScript language jobs, by choosing a screen angle set from this menu. The default set (`15.0, 75.0, 0.0, 45.0`) is used for most offset litho work, while settings are also provided for other screening systems.

To decide which angle set to use:

1. Convert all the screen angles your job uses to numbers in the range 0° through 90°. Do this by repeatedly adding 90° to any values less than 0° or subtracting 90° from any values of 90° or greater.
2. Compare the converted numbers with angles in the menu entries. There are three possibilities:
   - If you reach a set of values where all of the numbers are in a single entry in the menu then use that entry.
   - If the values do not match an entry exactly then select the closest match.
   - If there is no close match then select the default (`15.0`, `75.0`, `0.0`, `45.0`).

Snap angles to nearest 7.5 degrees

Select this check box to change requested job angles to match the optimum angles chosen in the **Optimize for angle set** menu, if requested angles are within 7.5 degrees of the optimum angles.

Angle Accuracy Frequency Accuracy

Increasing these values (that is, increasing allowable variations from the angle and frequency requested in the job) gives the RIP more freedom in selecting a screen, and may reduce patterning on individual films, but this may also *increase* the likelihood of moiré effects between plates. If you are using HPS to produce extra grays on monochrome or non-overlapping spot color work, you can safely increase these values and may obtain slightly better output. If you are producing process separated work, you should probably not change the default number.

Zero degrees frequency adjustment

Once the RIP has calculated a screen set for the Cyan, Magenta, and Black screens, it determines the frequency of the Yellow screen using the value specified in this text box. A number of printers have discovered that increasing the frequency of the Yellow screen can reduce the residual *moiré* that is inevitable when using four process plates with halftoning systems. Values typically used are 5% to 11% greater than the frequency of the other screens.

We have found that the effect is very similar if the frequency of the Yellow screen is reduced rather than increased, and that this allows the more noticeable Cyan, Magenta, and Black screens to be imaged at a higher frequency, when the capability of the platemaker/paper/ink/press combination is the limiting factor on halftones. The default value of 7% means that the frequency of the Yellow screen is 93% (100% – 7%) of the deviated frequency used for Cyan, Magenta, and Black screens.

Maximum Frequency deviation

The RIP selects the individual frequencies for the Cyan, Magenta, and Black screens such that they differ from the requested frequency by no more than the percentage value specified in this text box. Then it determines the frequency of the Yellow screen using the value in the **Zero degrees frequency adjustment** text box.

Increasing this value gives the RIP more freedom in finding an optimal screen set and can reduce patterning or *moiré*, at the expense of possibly giving final output at a screen frequency further from that originally requested. A value of between 5% and 10% is normally acceptable.

Enable HPS 2.0

Select this box to use features added to HPS. These features can improve the quality of output when using the **Generate extra gray levels** option. Flat tints and vignettes are smoother, particularly in highlights and shadows, because the mottling effects which can be caused by generating the extra gray levels are reduced. (Even without HPS 2.0, these effects are unlikely to be significant until the ratio of resolution to screen frequency is less than 12: for example, you might see mottling with a resolution of 1270 dpi and a screen frequency of 150 lpi (lines per inch), where the ratio is about 8.5.)

Abort job if accuracy not achieved

If this check box is selected and it is not possible to determine a screen set within the requested **Angle Accuracy** or **Frequency Accuracy**, MWF cancels the job currently being output.

Limit screen levels to:

This menu allows you to separate pattern-reduction adjustments from extra gray level generation calculations. Choose a high value from this menu and choose the number of gray levels that you actually require from the **Limit number of distinct gray levels to** menu. If you see patterning on individual films, try choosing a higher value from this menu: if you believe that there is a shortage of memory, reduce this value.

Generate clear centered rosettes



Figure 22.7 Clear centered and spot centered roses

When color separations are combined, the dots form one of two rosette patterns as shown in Figure 22.7. Clear centered rosettes are less likely than spot-centered rosettes to show a significant color shift if separations are printed slightly out of register, but the output produced is normally less saturated, lighter, and has a more noticeable rosette structure. In general we recommend that output at high frequencies, or where the output may be run on presses with poor registration, should use clear centered rosettes, while output at low screen frequencies or on well registered devices (including most color printers) should use spot-centered rosettes. If you find that you are not getting consistent spot or clear-centered rosettes across the full width of a page: try varying the requested frequency slightly, or increase **Maximum frequency deviation** to allow MWF to find a screen set with a better angle and frequency accuracy.

Rotate screens according to page rotation

For all screening apart from HDS, you can select this check box to maintain screen angles relative to the page axes. This may help you diagnose the cause of problems with patterning in the output. If you still see stripes or bands parallel to the output engine's scan lines (across the film

on a capstan device, along it in a drum device), after selecting this check box the problem can probably be corrected by adjusting settings in MWF, if they do not your hardware may be at fault.

22.4 Calibration options

Calibration settings for the output module are accessible in the Calibration tab, as shown in Figure 22.8.

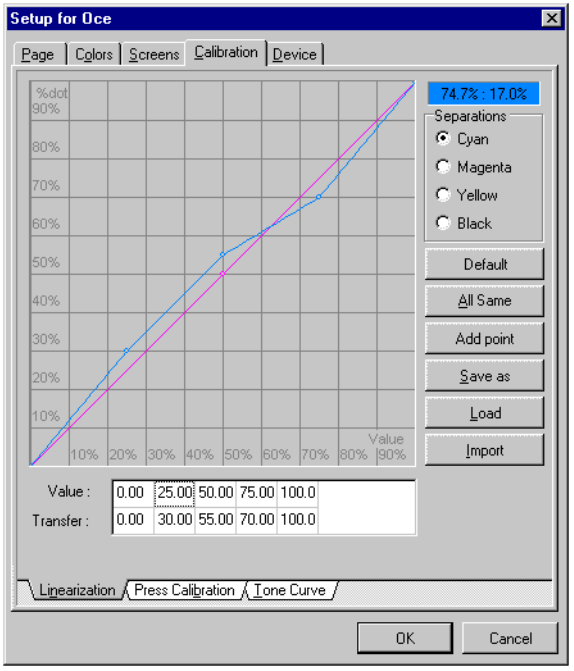


Figure 22.8 Calibration tab

The calibration data is used to ensure that requested tint levels in a job can be reproduced accurately on the output device. For example, you can print calibration targets with requested tint values (1-100%) for all separations (Cyan, Magenta, Yellow, Black) and then use a densitometer to measure the actual tint values produced by the output device. If you discover that the output device produces a tint level for Cyan of 55% when only 50% was requested,

you can enter this calibration data in the Calibration tab, as shown in Figure 22.8. MWF uses this data in color transfer calculations to prevent over-inking on the output device.

The collection of calibration data for all color separations is known as a calibration profile because it characterizes the output device.

The options in this tab are described in Section 22.4.1 on page 328, and Section 22.4.2 on page 330 provides some general guidelines and a step-by-step guide on how to calibrate your device.

22.4.1 General controls

The main calibration graph in the Calibration tab shows calibration curves for each color separation. These curves represent the color transfer that takes place between tint values requested in a job and the actual tint values produced by the output device. By default, the calibration curves are a straight line (linear curve) which means that no color adjustments are made by MWF.

You can change the calibration curves as follows:

- By specifically entering values into the **Value**/**Transfer** boxes for each calibration point. If you need to define the calibration profile in finer detail, you can add more **Value**/**Transfer** boxes by clicking the **Add point** button.
- By using your mouse to add new points onto the graph or by dragging the graph line into place. Each new point will be added to the list of **Value/Transfer** boxes from where they can be adjusted manually, as described above.

When measuring the patches on a calibration strip from 100%-0%, the value for each patch must be higher than the next patch. If this is the case, the values produce a smooth curve when plotted on a graph. If the value for a patch is not higher than the next patch, there is a 'bump' in the curve and the measurement data is non-monotonic. An error message will appear if you try to change the calibration curve so that it is non-monotonic.

Value

Enter the requested tint value as a percentage, as shown on the calibration target.

Transfer

Enter the actual tint value measured from the calibration target in relation to the requested tint value. See Section 22.4.2 on page 330 for details on how to produce and measure a calibration target.

Separations

Select the separation that you wish to edit by clicking the relevant radio button. The calibration curve for the selected separation is displayed in the calibration graph and can be edited as discussed in the introduction to this section.

Default

Click this button to revert the calibration curve for the currently selected separation to the default linear curve. The default linear curve assumes that the printer can accurately reproduce requested tint values.

All Same

Click this button to change the calibration curves of all the separations to match the calibration curve of the currently selected separation.

Add point

Click this button to open the Add Point dialog in which you can specify a new point in the calibration curve. The **Value/Transfer** values that you enter in the Add Point dialog are then listed below the calibration graph where they can be further edited.

Save as

Click this button to save the calibration profile that you have created. A standard Save As dialog opens. You should save the file as a Color Transfer file with the extension `.sct`. A warning dialog will appear if you attempt to overwrite an existing color transfer file.

Load

Click this button to load a previously created calibration profile. A standard Open dialog opens. The calibration profile should be a Color Transfer file with the extension `.sct`.

Import

Click this button to import calibration data created using the Genlin utility. Section 9.6 on page 110describes how to create a calibration profile for your output device.

Linearization

Linearization is a special case of calibration, commonly used when producing output on an imagesetter. Enter calibration data in this tab that has been gained from measuring a calibration target printed on an imagesetter.

Press Calibration

Press Calibration, or non-linear calibration, is typically used when calibrating a printing press. Enter calibration data in this tab that has been gained from measuring a calibration target printed on a press.

Tonal Curve

Tonal curves offer a quick and effective way of working around short-term difficulties such as lack of calibration facilities or badly formed jobs that you cannot easily correct in the job. For example, you may have to process a particular set of images where the correct calibration does not produce an acceptable printed result, or you may wish to emphasize a color or tonal range in response to artistic direction, such as a request to boost the mid-tone magenta component by 10%.

Enter higher values where you wish to see more output. For example, assuming a positive-reading system where 0% is no output and 100% is full density or coverage, enter values *higher* than the nominal values of the patches to produce more output for a given input.

22.4.2 Calibration procedure

To create a calibration profile, you need a reliable and accurate densitometer that is reflective for paper and transmissive for film. The densitometer that you select should ideally display dot coverage in percentage terms, rather than density readings, since calculating coverage by hand is time-consuming and prone to errors. The overall calibration procedure is:

1. Where appropriate, establish the correct exposure for the device.

Note: Attempting to calibrate an imagesetter with badly adjusted exposure settings will waste a lot of time and film, and may lead to undesirable effects at plate-making time, such as variable dot gain. Run a series of test pages at varying exposures to determine the setting required to give a solid black and a clear white.

2. Print and measure all necessary calibration targets.

   Calibration targets for all process colorants are supplied in the `Samples` folder, which is located in the MWF folder. For example, when calibrating a film imagesetter, you need to print only the file `calB.eps` because the imagesetter prints only in black. For color printers, you need to print all four calibration targets: `calC.eps` (Cyan), `calM.eps` (Magenta), `calY.eps` (Yellow) and `calB.eps` (Black). To print the targets, drop them into the Scan folder.

3. Enter the data from your densitometer readings into the Calibration tab, or click the **Import** button and select the file to import the calibration data.

4. Check that the calibration profile produces good output and adjust values if necessary.

Tip: You should calibrate your device regularly to ensure consistent and accurate color reproduction. In particular, you should calibrate your output device whenever you use a new batch of inks or media, as they affect color reproduction.

22.5 Color profile tab

You can use the Color profile tab (**Alt+R**) to use International Color Consortium (ICC) profiles that have been imported into the Harlequin RIP.

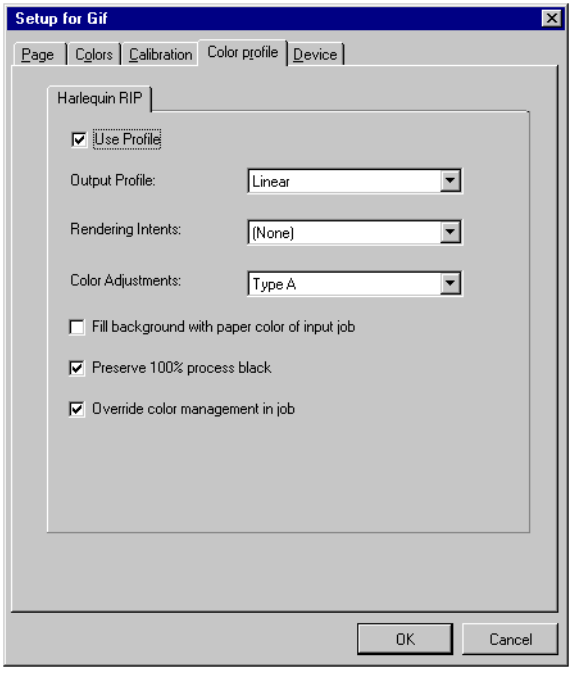


Figure 22.9 Color profile tab

MWF supports the use of ICC profiles for ICC compliant output devices. ICC profiles define the characteristics of printers, presses, scanners, and other output devices so that they can be easily ported and used in prepress applications, such as MWF. ICC profiles are available for use when the Harlequin ICC Profile Processor (HIPP) is enabled in the Harlequin RIP module, as described in Section 9.5 on page 110.

Note: HIPP is a purchasable option in MWF. Your dealer will be able to supply you with a password.

The options in the Color profile tab fall into categories—Color profile options, and Color management options—as described in the following subsections.

22.5.1 Color profile options

Use profile

Select this check box to enable the rest of the options in the Color profile tab. You cannot select this check box unless you have entered a valid password to enable the use of ICC profiles, as described in Section 9.3.3 on page 100.

Output profile

Select an ICC profile for your output device from this list. If such a profile does not appear, you must install it into the Harlequin RIP, as described in Section 9.5 on page 110. Choose `Linear` if you wish to assume that the device has been linearized. Note that the output profile that you choose is only used if you also select an input profile in the SmartScan module, as described in "ICC Input Profiles" on page 42.

22.5.2 Color management options

Rendering Intents

The rendering intents are described in Table 22.1 below.

Intent	Description
`(None)`	Applies no rendering intents.
`(ICC Auto Switching)`	Applies different rendering intents to different objects on the same page. This is a fixed mapping: `perceptual` for images. `colorimetric` for all other objects.
`(->ICC perceptual)`	Maps the entire device-independent color space onto the gamut of the printer by compressing the range of in-gamut colors to make room for out-of- gamut colors. It is appropriate for rendering photographs and similar reproductions of natural scenes.
`(->ICC saturation)`	Specifies that the saturation of the colors in the image is preserved, perhaps at the expense of accuracy in hue and lightness. Suitable for charts, presentations, and business graphics.

Table 22.1 Rendering intents

Intent	Description
`(->ICC colorimetric)`	Applies absolute or relative colorimetric rendering, based on the setting of the **Fill background with paper color of input job** check box. Select the check box to use absolute colorimetric. *Absolute colorimetric*—Any color the device can reproduce (with the intended setup and viewing conditions) is reproduced exactly. Colors outside the device gamut are mapped onto a 'nearby' point in the gamut. There are various ways in which a color might be out of gamut. For example, it could be too saturated, lighter than the paper color, or darker than the darkest imageable patch. Colorimetric reproduction is appropriate where an exact color match is required. For example, you may choose a colorimetric strategy when you are reproducing a logo in corporate colors. *Relative colorimetric* —This style aims to reproduce colors exactly, except that the luminance (how light or dark a color is) is scaled so that the darkest possible color is mapped to the darkest imageable color, and the lightest possible color to the paper white. This style may change the hue (degree of redness, blueness, and so on) of any color, and is almost certain to affect the luminance of most colors. Some scanners and applications produce data that has been adjusted so that the lightest and darkest point are encoded as maximum and minimum lightness. For interpreting this kind of image, the relative colorimetric style is appropriate.

Table 22.1 Rendering intents

Color adjustment

`Type A` and `Type B` are different modes of interpretation. Typically, `Type B` produces better results but is slower than `Type A`. However, the output time and quality are device-dependent so you must experiment with these options.

Fill background with paper color of input job

Select this check box if you want the output device to lay down a background which matches the paper base color of the input. If you do not check this box, colors will be adjusted so that the white base is mapped to the (final) output device's paper color. If you have selected `ICC colorimetric` as your rendering intent and this check box is selected then MWF will use the `absolute colorimetric` rendering intent.

23

TIFF



The TIFF (Tagged Image File Format) module allows you to convert files that have been processed by the Harlequin RIP to TIFF files compatible with the TIFF 5.0 file specification.

23.1 TIFF workflow

The TIFF module is a file format module that is commonly used in MWF configurations as an output module, accepting raster image data from the Harlequin RIP. TIFF files created by the TIFF module are typically sent to an output folder which is scanned by a SmartScan module. The SmartScan module is then connected directly to an output device module, such as the HP Plotter. The figure below illustrates such a workflow:

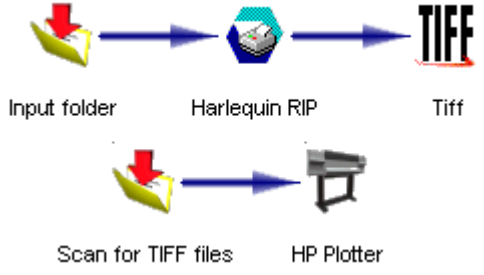


Figure 23.1 TIFF workflow

23.2 TIFF controls

Right-click the TIFF module to display the pop-up menu showing all the configuration and viewing options:

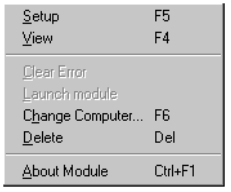


Figure 23.2 TIFF module pop-up

The following controls are available for the TIFF module:

- **Setup**—all output modules share common controls. These are described in Chapter 22, "Common Controls for the Output Modules". For details on device-specific controls, see "Device-specific controls" below.
- **View**—see "TIFF Devices Viewer" on page 346.

See "Module shortcut menus" on page 18 for details on the other general options in the pop-up.

23.2.1 Device-specific controls

To configure the TIFF module, choose **Setup** from the TIFF module pop-up. The Setup for TIFF dialog box opens. The options in the Device tab (**Alt+D**) allow you to select device-specific settings:

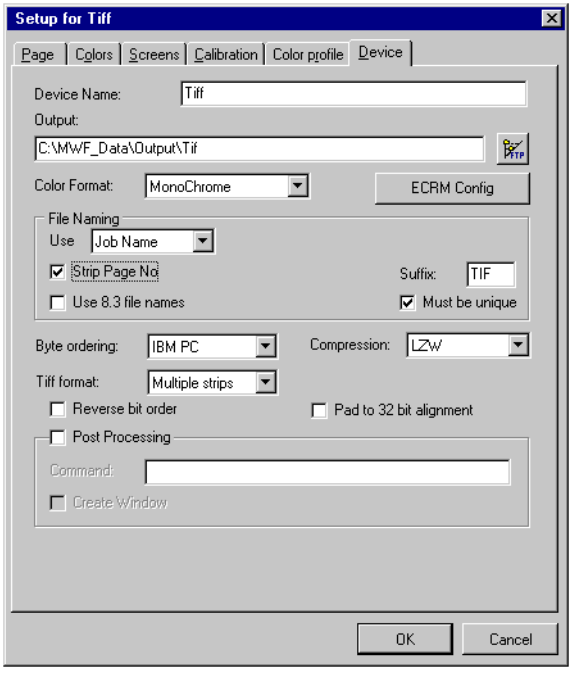


Figure 23.3 Device tab for the TIFF module

The options in the Device tab fall into categories—output options, file naming options, file format options, and post processing options—as described in the following subsections.

23.2.1.1 Output options

Device name

Allows you to enter a new name for the module. The module name is used wherever the module is referenced: on the workspace; in log files; when linking to and from other modules.

Output

This is the location of the output folder, to which TIFF files will be sent. You may either click within the text box and type in the path of your choice, or click  alongside the text box.

Color Format

This menu contains the color formats: `Monochrome`; `GrayScale`; `Composite RGB` and `Composite CMYK`. The color format you choose determines the color space and format of the output. For example, `Composite CMYK` produces a file in which each page of a job contains the information for all the process colors (Cyan, Magenta, Yellow and Black). If you wish to output separations, you must choose `Monochrome` and specify which separations you want to produce in the Colors tab, as described in Chapter 22, “Common Controls for the Output Modules”.

ECRM Config

Click this button to open the ECRM Configuration dialog box, which allows you to select a configuration file to use when sending TIFF files to a DesertCat device.

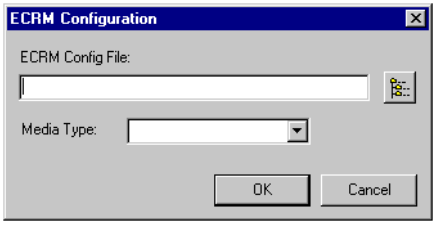


Figure 23.4 ECRM Configuration dialog box

ECRM Config File

You can click in this text box and type in the path of your ECRM configuration file. Alternatively, click the button to the right of the text box to open a file browser, which you can use to select a configuration file from any accessible system drive.

Media Type

Select the media type that you are using from this menu.

23.2.1.2 File naming options

In general, the TIFF module generates a name for each output file by combining characters from some of the following character strings:

- The page number of the job.
- A stem—fixed or variable.
- The name of the separation.
- A sequentially increasing number.
- A suffix.

For example, the file name `01jobname.psGray00.TIF` is composed of the page number of the job (`01`), the job name as a variable stem (`jobname.ps`), the separation name (`G`, for Grayscale, `C` for Cyan etc.), a number to make the file unique (`00`), and the suffix `TIF`.

The options that you choose in the file naming section determine which character strings to include in the file name.

Use

This menu contains the file naming options: `Job Name`, `Prefix` and `Template`.

Choose `Job Name` to use the job name as a variable stem in the file name of all output files. This is the default setting.

If you choose `Prefix`, a text box opens, in which you can enter text to be used as the fixed stem of the file name.

If you choose `Template`, a text box opens, in which you can enter tags and fixed text to specify a template to use when generating file names. If you choose this option, all other file naming options are disabled.

The default file name template is **<NAME>.TIF**, which produces a file name of the form: *jobname.ps* **.TIF**. The following standard tags are available for use in a file name template:

- **<NAME>**—the job name, e.g. **jobname.ps**.
- **<COLOR>**—the color name, e.g. **Gray**, **Cyan**, **Magenta** etc.
- **<PAGE>**—the page number, e.g. **1**, **2** etc.
- **<TITLE>**—the name of the PostScript language file, without the **.ps** extension, e.g. **jobname**.

If you use the naming convention feature in the SmartScan module to create other tags with different field names, for example **name1**, you can also use these tags. To use tags created by the naming convention feature, you must precede them with **pg_**, for example, **<pg_name1>**. The prefix **pg_** and the field names are not case sensitive and can be in any order. See "Name Convention" on page 37 for further details.

If an Imposition module is part of your workflow, the following standard tags are also available for use in a file name template:

- **<TIME>**—the time at which the file was processed, e.g. **153936** (approximately 3:39 pm).
- **<DATE>**—the date on which the file was processed, e.g. **20000412** for a file processed on the 4th of April, 2000.
- **<PLATE>**—the plate number, e.g. **01**.
- **<PROJECT>**—the project name, as specified in the Imposition module, e.g. **Project_0**.

These tags do not require a prefix and are not case sensitive.

Strip Page No

Select this check box to strip all page numbers from files being processed.

Use 8.3 file names

Select this check box to name output files using the DOS naming convention. Maximum allowed characters are eight, with a three-character extension.

Suffix

Enter the suffix to use for output files in this text box. The default value is `TIF`. By convention, many applications expect the suffix of a TIFF file to be `tif` or `TIF`.

Must be unique

Select this check box to ensure that all output files generated by the TIFF module have a unique name. A unique file name is created by adding a sequentially increasing number to the file name, as shown in the example on page 341.

Having this box turned on will prevent files from being overwritten if the same file name is resubmitted to the workflow. This is especially important with multipage, pre-separated files, where each page / separation may have the same title as the previous page. This is quite common with Quark files.

23.2.1.3 File format options

The following controls determine the data format of the TIFF file. A particular data format may be required by the specific application that will read the TIFF files or may improve the portability or speed of access of the files.

Byte ordering

You can choose between `Macintosh` and `IBM PC` byte ordering from this menu. This is the order of bytes in a word, needed by the TIFF reader to correctly interpret the TIFF header. Most TIFF readers can read both sorts of header.

Compression

You can choose the compression format to use for the output file from this menu. The choices are: `None`, `CCITT Group 4`, `LZW`, or `Packbits`.

The TIFF module is configured to use LZW compression by default, and this works well with both monochrome and CMYK output.

Note: The CCITT Group 4 compression format is only suitable for monochrome output.

TIFF format

You can choose the basic internal format used for the file from this menu. TIFF files can either contain the image data in a `Single strip` (all in one chunk) or `Multiple strips` (several chunks).

Reverse bit order

Select this check box to produce monochrome TIFF files with reverse bit ordering. This reverses the order of bits in a byte in the raster data of a monochrome TIFF file, so if the byte was `11010001` it becomes `10001011`.

Pad to 32 bit alignment

Select this check box to make each line of the TIFF file data end on a multiple of 32 bits. This is an efficiency setting, for monochrome output only, that may make the file faster to read in some applications.

23.2.1.4 Post processing options

You can use this section of the dialog box to define extra actions after the TIFF module has created each TIFF file. These actions depend on commands supplied with Microsoft Windows.

To do this, you type text specifying a command and its options in a way similar to typing in a Windows command prompt window. The command can be a simple batch file or a complex application, provided that you can give the command all necessary options and information on the command line; a command needing operator interaction is likely to cause problems. You can use such post processing commands to extract information for use in reports. There are several other possibilities, such as emailing somebody confirmation that the file has been processed, limited only by your ability to obtain or create a suitable application and to supply information to it.

The controls in this section of the dialog box are:

Post Processing

Select this check box to enable a post processing command, as entered in the **Command** text box. Leave it unselected to disable post processing.

Command

Enter a string specifying a post processing application, which must be available on the computer running MWF. Optionally, you can supply options understood by the application, and data such as the name of the relevant input or output files. The command string can contain substitution codes. MWF expands the codes and runs the command at the end of each output file.

Table 23.1 below lists the recognized substitution codes. The string should normally include the file extension and the full path name of the application file. However, you can type just the file name if the command file has extension `.EXE` and is in one of the folders specified by the `PATH` variable. File names passed to the application as data are assumed to be in the folder receiving the TIFF files, unless you type a different path name.

Post processing substitution codes

The TIFF module recognizes the substitution codes shown in Table 23.1. You can also use the file name template tags described on page 342.

Code	Meaning
%f	The output TIFF file name, not including the full path. For example, based on the job name and not suppressing the page number: `01jobnname.psC05.TIF`.
%o	The full output directory path. For example: `C:\S\TIFF\`.

Table 23.1 Post processing substitution codes

Create window

Select this check box to display a Windows command prompt window, for example, to display any messages produced by the post processing command. The command window closes at the end of the command so, to read any messages, you may need a timed delay before the command finishes. (A wait for a key-press command may be useful for testing but becomes unworkable with many output files.)

23.2.2 TIFF Devices Viewer

If you choose **View** from the TIFF module pop-up menu, the TIFF Devices Viewer window opens:

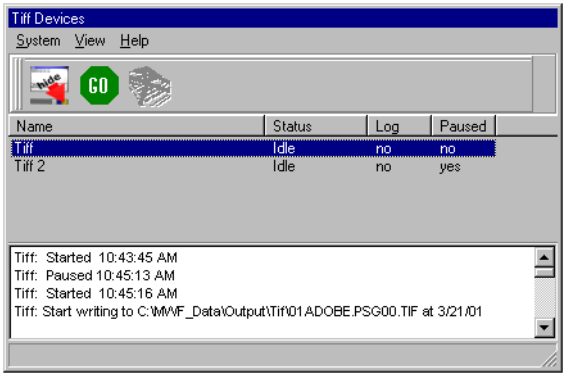


Figure 23.5 TIFF Devices Viewer

This dialog box allows you to view the status of all the TIFF modules that are in the workspace. This dialog consists of a table listing the status of each TIFF module, as well as a log monitor window in which you can view progress and error messages. All messages in the log monitor window are prefixed by the name of the module to which they refer.

Name

This column lists the name of the TIFF module that appears in the workspace. The name of the TIFF module is specified in the Device tab, as described on page 339.

Status

This column indicates the status of the module, which can be *Idle* or *Busy*.

Log

This column indicates whether or not the module is set to record all messages in a log file (`yes/no`).

Paused

This column indicates whether or not the module has been paused (`yes/no`). You can click the **GO/STOP** button to start or stop the module.

For further details on the general controls in the dialog, see “Monitoring job processing in MWF” on page 17.

24

GIF



The GIF (Graphics Interchange Format) module allows you to convert files that have been processed by the Harlequin RIP to GIF files. You can then use this module to send the GIF files to your web server, allowing customers to soft proof jobs.

24.1 GIF workflow

The GIF module is a file format module that is commonly used in MWF configurations as an output module, accepting raster image data from the Harlequin RIP. GIF files created by the GIF module are typically sent to a web server using FTP. The figure below illustrates such a workflow:



Figure 24.1 GIF workflow

24.2 GIF controls

Right-click the GIF module to display the pop-up menu showing all the configuration and viewing options:

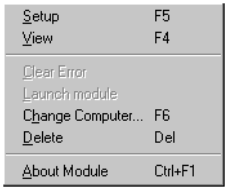


Figure 24.2 GIF module pop-up

The following controls are available for the GIF module:

- **Setup**—all output modules share common controls. These are described in Chapter 22, “Common Controls for the Output Modules”. For details on device-specific controls, see “Device-specific controls” below.
- **View**—see “GIF Devices Viewer” on page 355.

See “Module shortcut menus” on page 18 for details on the other general options in the pop-up.

24.2.1 Device-specific controls

To configure the GIF module, choose **Setup** from the GIF module pop-up. The Setup for GIF dialog box opens. The options in the Device tab (**Alt+D**) allow you to select device-specific settings:

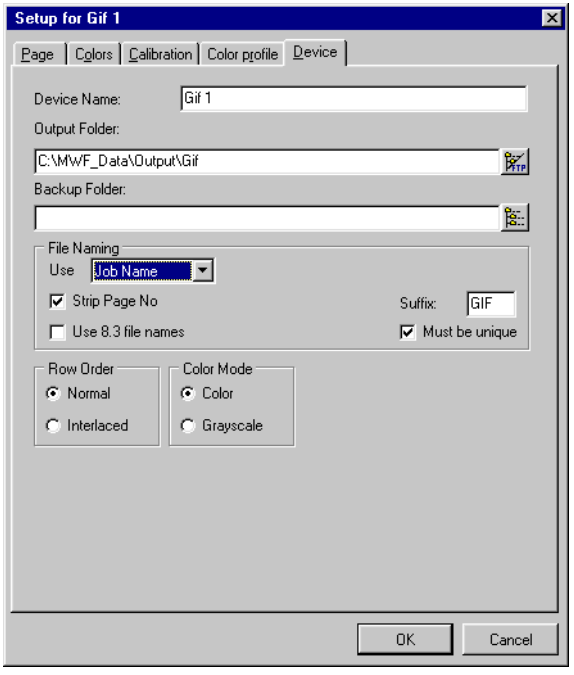


Figure 24.3 Device tab for the GIF module

The options in the Device tab fall into categories—output options, file naming options, and file format options—as described in the following subsections.

24.2.1.1 Output options

Device name

Allows you to enter a new name for the module. The module name is used wherever the module is referenced: on the workspace; in log files; when linking to and from other modules.

Output Folder

This is the location of the output folder, to which GIF files will be sent. You may either click within the text box and type in the path of your choice, or click  alongside the text box.

Backup Folder

This is the location of a folder, to which backup copies of GIF files will be sent. Select a backup folder in the same manner as described for selecting an output folder.

24.2.1.2 File naming options

In general, the GIF module generates a name for each output file by combining characters from some of the following character strings:

- The page number of the job.
- A stem—fixed or variable.
- A sequentially increasing number.
- A suffix.

For example, the file name `01jobname.ps00.GIF` is composed of the page number of the job (`01`), the job name as a variable stem (`jobname.ps`), a number to make the file unique (`00`), and the suffix `GIF`.

The options that you choose in the file naming section determine which character strings to include in the file name.

Use

This menu contains the file naming options: `Job Name`, `Prefix` and `Template`.

Choose `Job Name` to use the job name as a variable stem in the file name of all output files. This is the default setting.

If you choose `Prefix`, a text box opens, in which you can enter text to be used as the fixed stem of the file name.

If you choose `Template`, a text box opens, in which you can enter tags and fixed text to specify a template to use when generating file names. If you choose this option, all other file naming options are disabled.

The default file name template is **<NAME>.GIF**, which produces a file name of the form: *jobname.ps*.GIF. The following standard tags are available for use in a file name template:

- **<NAME>**—the job name, e.g. **jobname.ps**.
- **<COLOR>**—the color name, e.g. **Gray**, **Cyan**, **Magenta** etc.
- **<PAGE>**—the page number, e.g. **1**, **2** etc.
- **<TITLE>**—the name of the PostScript language file, without the **.ps** extension, e.g. **jobname**.

If you use the naming convention feature in the SmartScan module to create other tags with different field names, for example **name1**, you can also use these tags. To use tags created by the naming convention feature, you must precede them with **pg_**, for example, **<pg_name1>**. The prefix **pg_** and the field names are not case sensitive and can be in any order. See "Name Convention" on page 37 for further details.

If an Imposition module is part of your workflow, the following standard tags are also available for use in a file name template:

- **<TIME>**—the time at which the file was processed, e.g. **153936** (approximately 3:39 pm).
- **<DATE>**—the date on which the file was processed, e.g. **20000412** for a file processed on the 4th of April, 2000.
- **<PLATE>**—the plate number, e.g. **01**.
- **<PROJECT>**—the project name, as specified in the Imposition module, e.g. **Project_0**.

These tags do not require a prefix and are not case sensitive.

Strip Page No

Select this check box to strips all page numbers from files being processed.

Suffix

Enter the suffix to use for output files in this text box. The default value is **GIF**. By convention, many applications expect the suffix of a GIF file to be **gif** or **GIF**.

Use 8.3 file names

Select this check box to name output files using the DOS naming convention. Maximum allowed characters are eight, with a three-character extension.

Must be unique

Select this check box to ensure that all output files generated by the GIF module have a unique name. A unique file name is created by adding a sequentially increasing number to the file name, as shown in the example on page 352. Having this box turned on will prevent files from being overwritten, if the same file name is resubmitted to the workflow. This is especially important with multipage, preseparated files, where each page/separation may have the same title as the previous page. This is quite common with Quark files.

24.2.1.3 File format options

Row Order

The option you choose effects the way that the GIF image is repainted when viewed on-screen. Choose `Normal` if you wish the image to be repainted from top to bottom. Choose `Interlaced` if you wish the image to be repainted in layers, that is, one color at a time.

Color Mode

Choose **Color** if you wish to create a color image GIF file. Choose **GrayScale** if you wish to create a grayscale image GIF file.

24.2.2 GIF Devices Viewer

If you choose **View** from the GIF module pop-up menu, the GIF Devices Viewer window opens.

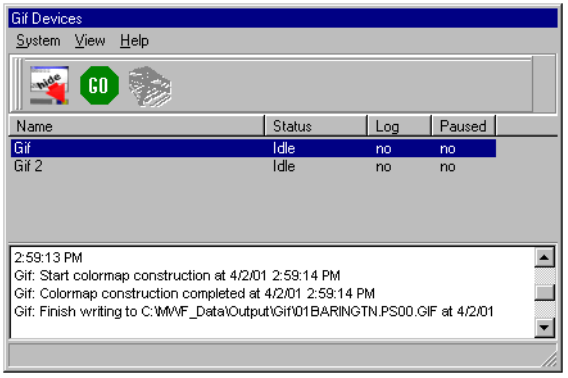


Figure 24.4 GIF Devices Viewer

This dialog box allows you to view the status of all the GIF modules that are in the workspace. This dialog consists of a table listing the status of each GIF module, as well as a log monitor window in which you can view progress and error messages. All messages in the log monitor window are prefixed by the name of the module to which they refer.

Name

This column lists the name of the GIF module that appears in the workspace. The name of the GIF module is specified in the Device tab, as described on page 351.

Status

This column indicates the status of the module, which can be *Idle* or *Busy*.

Log

This column indicates whether or not the module is set to record all messages in a log file (`yes`/`no`). See page “Log file directory” on page 15 for details on how to specify the location and other properties of the log file.

Paused

This column indicates whether or not the module has been paused (`yes/no`). You can click the **GO**/**STOP** button to start or stop the module.

For further details on the general controls in the dialog, see "Monitoring job processing in MWF" on page 17.

25

DCS



The DCS (Desktop Color Separations) module allows you to convert files that have been processed by the Harlequin RIP to DCS files compatible with the DCS 2.0 or 1.0 file specification. DCS files contain information that allows you to produce color separations using desktop prepress applications. DCS files may contain a preview image to allow a soft proof, as well as a low-resolution composite image that can be used to generate a printed proof.

25.1 DCS workflow

The DCS module is a file format module that is commonly used in MWF configurations as an output module, accepting raster image data from the Harlequin RIP. This raster image data is converted into either a single file (2.0 specification DCS file) or multiple DCS files (1.0 specification DCS files).

If you use the DCS module to produce individual files for color separations as well as a composite EPS file, you can create additional workflows to process the composite and separation files:

- Composite files—You can create a scan folder for composite EPS files, which can then be sent to an output device module such as the HP Plotter. This allows you to create a printed proof of the original input file before producing separations on an imagesetter.
- Separation files—You can create a scan folder for separation files, which can then be sent to an output device module such as Max Imagesetter to produce separations.

The figure below illustrates these workflows:

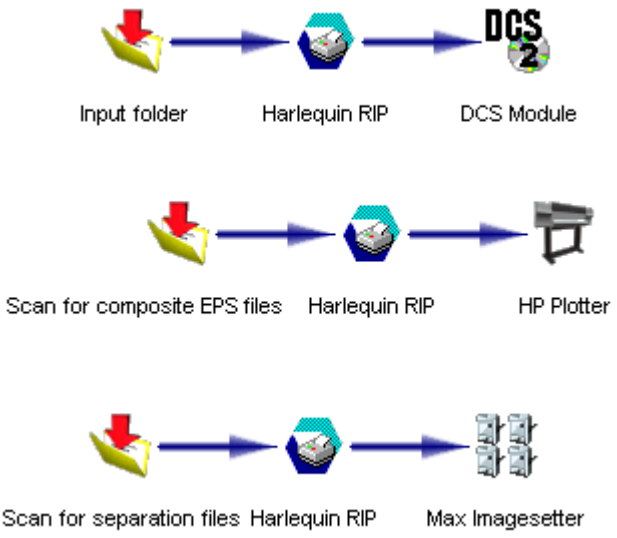


Figure 25.1 DCS workflow

25.2 DCS controls

Right-click the DCS module to display the pop-up menu showing all the configuration and viewing options:

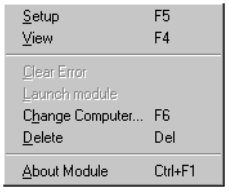


Figure 25.2 DCS module pop-up

The following controls are available for the DCS module:

- **Setup**—all output modules share common controls. These are described in Chapter 22, "Common Controls for the Output Modules". For details on device-specific controls, see "Device-specific controls" below.
- **View**—see "DCS Devices Viewer" on page 362.

See "Module shortcut menus" on page 18 for details on the other general options in the pop-up.

25.2.1 Device-specific controls

To configure the DCS module, choose **Setup** from the DCS module pop-up. The Setup for DCS dialog box opens. The options in the Device tab (**Alt+D**) allow you to select device-specific settings:

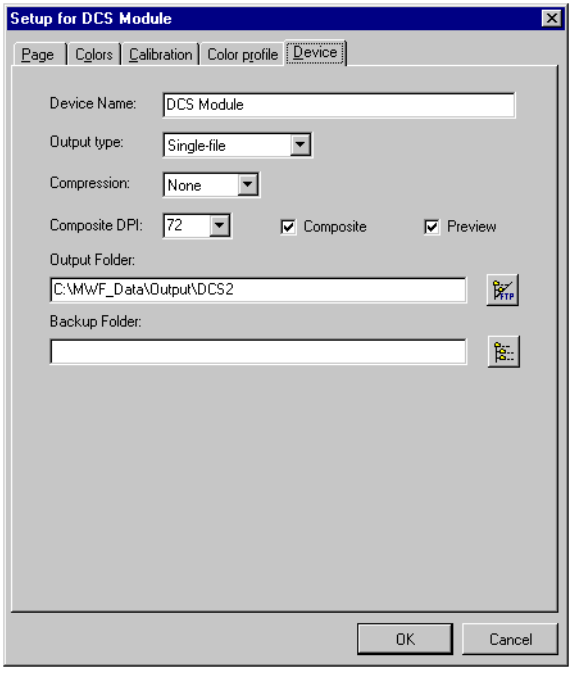


Figure 25.3 Device tab for the DCS module

The options in the Device tab are all output options—as described in the following subsection.

25.2.1.1 Output options

Device name

Allows you to enter a new name for the module. The module name is used wherever the module is referenced: on the workspace; in log files; when linking to and from other modules.

Output type

You can choose to output a single DCS 2.0 file containing information necessary to produce separations and a composite image (`Single-file`), or multiple DCS 1.0 files, defining each separation and a composite image (`Multiple-file`).

Compression

Choose the compression method used for all files from this menu. The default setting is `None` which leaves all files uncompressed.

Composite DPI

If you select the **Composite** check box to produce a composite image as part of the DCS file(s), you must choose the resolution (dpi) from this menu. Because the composite image is typically used to produce a composite proof, you should enter the resolution supported by your intended proofing device. If a suitable resolution is not available in the menu, enter an alternative value.

Composite

Select this check box to include a composite image in DCS files, which you can use to create a printed proof of the original input file, before producing separations on an imagesetter.

Preview

Select this check box to produce a preview image of the original input file, which can be used in some prepress applications to allow soft proofing.

Output Folder

This is the location of the output folder, to which DCS files will be sent. You may either click within the text box and type in the path of your choice, or click  alongside the text box.

Backup Folder

This is the location of a folder, to which backup copies of DCS files will be sent. Select a backup folder in the same manner as described for selecting an output folder.

25.2.2 DCS Devices Viewer

If you choose **View** from the DCS module pop-up menu, the DCS Devices Viewer opens:

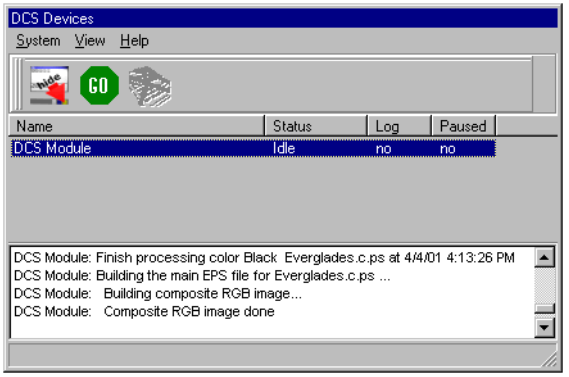


Figure 25.4 DCS Devices Viewer

This dialog box allows you to view the status of all the DCS modules that are in the workspace. This dialog consists of a table listing the status of each DCS module, as well as a log monitor window in which you can view progress and error messages. All messages in the log monitor window are prefixed by the name of the module to which they refer.

Name

This column lists the name of the DCS module that appears in the workspace. The name of the DCS module is specified in the Device tab, as described in “Output options” on page 360.

Status

This column indicates the status of the module, which can be *Idle* or *Busy*.

Log

This column indicates whether or not the module is set to record all messages in a log file (`yes/no`). See “Log file directory” on page 15 for details on how to specify the location and other properties of the log file.

Paused

This column indicates whether or not the module has been paused (`yes/no`). You can click the **GO/STOP** button to start or stop the module.

For further details on the general controls in the dialog, see "Monitoring job processing in MWF" on page 17.

26

CIP3



The CIP3 module allows you to convert files that have been processed by the Harlequin RIP to Print Production Format (PPF) files, as specified by a group called International Cooperation for Integration of Pre-press, Press, and Post-press (CIP3). PPF files contain information about print jobs including administrative data, information about inks and register marks, comments, and preview images.

The CIP3 specification is available on the World Wide Web (www.cip3.org). Briefly, the group wish to provide enabling standards for applying Computer Integrated Manufacturing (CIM) techniques to printing workflows by avoiding the need for recalculation or re-entry of information. The result of this work is the Print Production Format (PPF) file specification.

In the Harlequin RIP, you can use the same RIP that generates your film or plates to create CIP3 PPF files enabling ink-keys to be set quickly and easily on press. CIP3 file generation is just as easy and automatic as generating the plates and films themselves, and using those files with your press can bring you to color far faster, reducing make-ready times and wastage, and removing the need for plate scanners.

26.1 CIP3 workflow

The CIP3 module is a file format module that is commonly used in MWF configurations as an output module, accepting raster image data from the Harlequin RIP. This raster image data is converted into a PPF file. The figure below illustrates this workflow:



Figure 26.1 CIP3 workflow

26.2 CIP3 controls

Right-click the CIP3 module to display the pop-up menu showing all the configuration and viewing options:

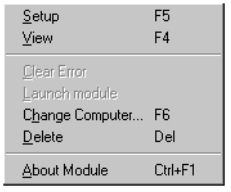


Figure 26.2 CIP3 module pop-up

The following controls are available for the CIP3 module:

- **Setup**—all output modules share common controls. These are described in Chapter 22, “Common Controls for the Output Modules”. For details on device-specific controls, see “Device-specific controls” below.
- **View**—see “CIP3 Devices Viewer” on page 379.

See “Module shortcut menus” on page 18 for details on the other general options in the pop-up.

26.2.1 Device-specific controls

To configure the CIP3 module, choose **Setup** from the CIP3 module pop-up. The Setup for CIP3 dialog box opens. The options in the Device tab (**Alt+D**) allow you to select device-specific settings:

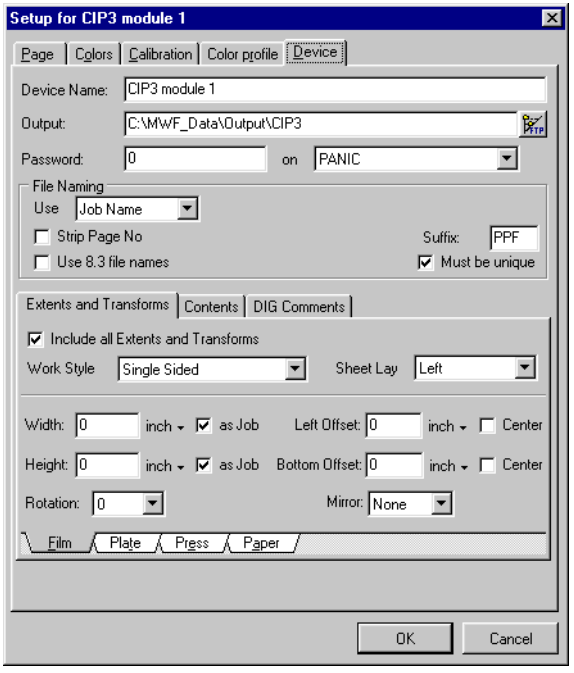


Figure 26.3 Device tab for the DCS module

The options in the Device tab fall into categories—output options, file naming options, extents and transforms options, contents options and DIG comments options—as described in the following subsections.

26.2.1.1 Output options

Device name

Allows you to enter a new name for the module. The module name is used wherever the module is referenced: on the workspace; in log files; when linking to and from other modules.

Output

This is the location of the output folder, to which CIP3 files will be sent. You may either click within the text box and type in the path of your choice, or click  alongside the text box.

Password

You must enter a password for the CIP3 module in this text box and choose the computer on which the Harlequin RIP is running from the accompanying text box.

26.2.1.2 File naming options

In general, the CIP3 module generates a name for each output file by combining characters from some of the following character strings:

- The page number of the job.
- A stem—fixed or variable.
- A sequentially increasing number.
- A suffix.

For example, the file name `01jobname.ps00.PPF` is composed of the page number of the job (`01`), the job name as a variable stem (`jobname.ps`), the separation name (`G`, for Grayscale, `C` for Cyan etc.), a number to make the file unique (`00`), and the suffix `PPF`.

The options that you choose in the file naming section determine which character strings to include in the file name.

Use

This menu contains the file naming options: `Job Name`, `Prefix` and `Template`.

Choose `Job Name` to use the job name as a variable stem in the file name of all output files. This is the default setting.

If you choose `Prefix`, a text box opens, in which you can enter text to be used as the fixed stem of the file name.

If you choose **Template**, a text box opens, in which you can enter tags and fixed text to specify a template to use when generating file names. If you choose this option, all other file naming options are disabled.

If you use the naming convention feature in the SmartScan module to create other tags with different field names, for example **name1**, you can also use these tags. To use tags created by the naming convention feature, you must precede them with **pg_**, for example, **<pg_name1>**. The prefix **pg_** and the field names are not case sensitive and can be in any order. See "Name Convention" on page 37 for further details.

If an Imposition module is part of your workflow, the following standard tags are also available for use in a file name template:

- **<TIME>**—the job at which the file was processed, e.g. **153936** (approximately 3:39 pm).
- **<DATE>**—the data at which the file was processed, e.g. **20000412** for a file processed on the 4th of April, 2000.
- **<PLATE>**—the plate number, e.g. **01**.
- **<PROJECT>**—the project name, as specified in the Imposition module, e.g. **Project_0**.

These tags do not require a prefix and are not case sensitive.

Strip Page No

Select this check box to strip all page numbers from files being processed.

Use 8.3 file names

Select this check box to name output files using the DOS naming convention. Maximum allowed characters are eight, with a three-character extension.

Suffix

Enter the suffix to use for output files in this text box. The default value is **PPF**. By convention, many applications expect the suffix of a PPF file to be **ppf** or **PPF**.

Must be unique

Select this check box to ensure that all output files generated by the CIP3 module have a unique name. A unique file name is created by adding a sequentially increasing number to the file name, as shown in the example on page 368.

26.2.1.3 Extents and Transforms options

There are several tabs in this section, one each for **Film**, **Plate**, **Press**, and **Paper**. You can set all of these values or leave some at the default values.

Extents refer to the physical area of the image. *Transforms* are the offsets, rotation, and mirroring that it is possible to apply. The transforms are cumulative and executed in the order of the tabs shown in this dialog box. For example, the transforms defined for **Film** are applied in moving from the raster data to the film image, the transforms for **Plate** are applied in moving from the film image to the plate, and so on.

A sufficiently big offset or inappropriate rotation can cause loss of image data, as Figure 26.4 shows. In each of the cases, the bold outline represents the total area of the film, and the light outline represents the image area. The shaded (gray) areas show where parts of the image are not imaged because of a transform.

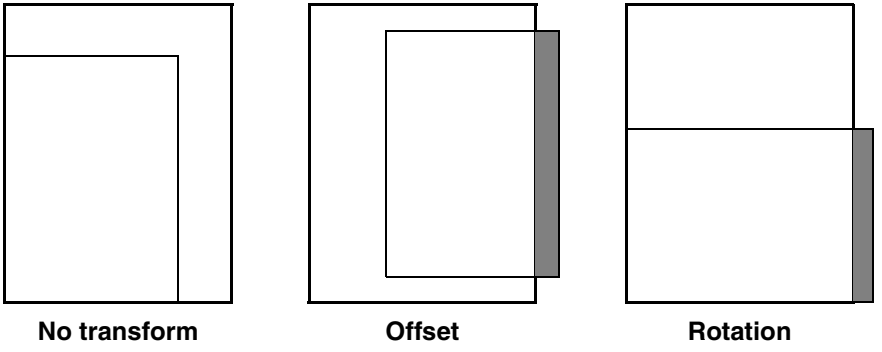


Figure 26.4 Transforms and possible image clipping

The CIP3 PPF specification defines all geometry with respect to an origin at the bottom left of the relevant coordinate system. However, the specification does not clearly define what is the "bottom left" of a plate, what is the image-able area of a press, and so on. You may encounter some conventions that are specific to the way in which various vendors have interpreted the specification.

Include all Extents and Transforms

Select this check box to include values in the PPF file for all settings in the **Extents and Transforms** section, even if they are at their default values. The default values have no effect, but the software reading the PPF files may require the settings to be present in the PPF file.

If you leave this box unselected, the PPF file includes only the values for controls that you have set explicitly. For example, if you have set values only for the **Film** and **Plate** tabs then only those values appear in the PPF file.

Work style

Select the imposition workstyle used for printing jobs. The menu provides the following options:

`Single Sided`
: Jobs are printed on a single side of media.

`Sheetwise` and `Perfecting Sheetwise`
: If the press uses a press sheet that can print 8 pages on a single side and your job contains 16 individual pages, you can set up a sheetwise imposition. You print the fronts of 8 pages, flip the paper and then print the backs of those 8 pages. In other words, if your jobs contain enough pages to fill up both sides of the press sheet, you can use a sheetwise printing scheme. However, if your job contains 4 distinct pages and the press sheet can contain 8 pages, you need to use a different method (or else have a lot of wasted paper). When using a sheetwise layout, you need two separate plates for each color, one for each side of the press sheet.

Choose the **Perfecting Sheetwise** option if the output device is a Perfecting printer, able to print both sides at the same time, otherwise choose **Sheetwise**.

Work and turn and **Perfecting Work and turn**

The work and turn layout uses a single plate for each color to print both sides of the paper. When the first side of the press sheet is printed, the paper is flipped over side-to-side and fed through the press again using the same gripper edge. When flipping, the top and bottom are not inverted. The top of the first side is the top on the second side. For example, if the press sheet supports 8 pages and your job contains 8 pages, you could either print the front 4, flip the page and print the back 4 pages (sheetwise printing), or you could set up a work-and-turn layout. In this layout, you would arrange all 8 pages on the plate. The pages would be carefully arranged so that when the press sheet is flipped, page 2 prints on the back of page 1, and page 1 prints on the back of page 2.

You end up with two complete front-and-back pages of each page on the press sheet. For a print run requiring 10,000 copies of each page, you only need to run 5,000 press sheets (not counting set-up and overrun prints).

Choose the **Perfecting Work and turn** option if the output device is a Perfecting printer, able to print both sides at the same time, otherwise choose **Work and turn**.

Work and tumble and **Perfecting Work and tumble**

The work and tumble layout is similar to work and turn, except that when a sheet is printed on one side it is turned over (tumbled) on its shorter length and printed on the reverse by gripping the other long edge. The left side of the press sheet for the first side is the same as the

left side of the press sheet on the second side. Again, you end up with two complete pages (front and back) on each press sheet.

Choose the `Perfecting Work and tumble` option if the output device is a perfecting press, able to print both sides at the same time, otherwise choose `Work and tumble`.

`Double-sided web`
: Prints jobs on both sides of the media for a web offset printer.

Sheet Lay

Provides instructions as to which edge is the guide edge for 2-sided jobs.

Width and as Job

Select the **as Job** check box to use the width set in the job.

Alternatively, to set a fixed value, deselect the check box and enter a value in the **Width** text field. The value set here is ignored if you select the **as Job** check box.

Height and as Job

Select the **as Job** check box to use the height set in the job.

Alternatively, to set a fixed value, deselect the check box and enter a value in the **Height** text field. The value set here is ignored if you select the **as Job** check box.

Rotation

Select one of the rotations available in this list. The default is `0` (zero) degrees for no rotation.

Left Offset and Center

Select the **Center** check box to center the image horizontally on the film.

Alternatively, to set a fixed offset, deselect the check box and enter a value in the **Left Offset** text field. A positive value moves the image to the right. The value set here is ignored if you select the **Center** check box.

Note: Figure 26.4, page 370, shows the effect of positive values for left and bottom offsets. You can also enter negative values.

Bottom Offset and Center

Select the **Center** check box to center the image vertically on the film.

Alternatively, to set a fixed offset, deselect the check box and enter a value in the **Bottom Offset** text field. A positive value moves the image upwards. The value set here is ignored if you select the **Center** check box.

Mirror

Select one of the choices available in this list. The default is `None` for no mirroring, but you can choose `Horizontal` or `Vertical` for cases that require it. For example, you may require mirroring where outputting the image emulsion-down.

26.2.1.4 Contents options

Version

Select your PPF readers language version. The options are `Version 2.0`, `2.1` and `3.0`, with the default set to `2.0`.

Compression

The options are `None` and `Run length`.

`None` produces an uncompressed file. `Run length` produces a compressed file. (The compression technique is lossless so there is no effect on image quality.)

Encoding

The options are `Binary (raw)`, `Hexadecimal`, and `ASCII 85`.

This controls the storage format of the preview images, giving various compromises between portability and file size but does not affect the image. If you want to transfer the PPF file over networks where conversion of the line-end characters within the file is possible, then you should use `ASCII 85` or `Hexadecimal`. If this is not the case, use the more compact `Binary` format.

CIP3AdmJob Name

Enter fixed text or a code sequence (or both) to set a value for the `CIP3AdmJobName` comment in the PPF files. See "Coding text entries for Job Name and Sheet Name" on page 375 for details of the possible codes and their meanings. The default value is the code `%J` which inserts the job name taken from the PostScript language job or a DIG comment if present.

Note: Together with the setting for **CIP3AdmSheet Name** the settings you make here allow the CIP3 plugin to pass information to the PPF reader software that associates the sheets with a job and to identify sheets in a double-sided job as being front or back sides.

CIP3AdmSheet Name

Enter fixed text or a code sequence (or both) to set a value for the `CIP3AdmSheetName` comment in a PPF file. The default value is the code `Sheet %S` which inserts the strings: `Sheet 1`, `Sheet 2`, and so on. See "Coding text entries for Job Name and Sheet Name" on page 375 for details of the possible codes and their meanings. See also the note for **CIP3AdmJob Name.**

Anti Alias

Select this box to antialias the preview image.

Coding text entries for Job Name and Sheet Name

Both of these text fields are coded in exactly the same way. They may include: plain text, which appears exactly as entered; with or without control sequences, which are replaced by variable text specific to the job or sheet as the job is processed.

Use the default values if you are in doubt about what you should include in these fields. The default values have been selected to be compatible with many CIP3 PPF readers. If you have problems with the defaults, please check for recommendations from the supplier of your PPF reader.

Control sequences must start with a percent character (`%`). This must be followed immediately with either of:

- A character taken from the list below

- An integer and then a character taken from the list below

There must be no spaces between the percent character, the integer (if present), and the control character itself.

The recognized control characters are:

`%F`	Inserts `Front` for the front of a two-sided sheet and `Back` for the back. All single-sided sheets are regarded as front sides.
`%G`	Inserts the signature number of the imposition. This number is always `1` unless the job contains `%SSiDIGSignature:` comments.
`%J`	Inserts the job name. This name is usually set by a PostScript language or PDF job. If a job does not set the name, this sequence inserts the input filename instead.
`%N`	Inserts the file name of the job being processed. If **Read Title** comments has been checked in the **DIG comments** section and the job contains a `%SSiDIGTitle:` comment then this sequence inserts the value of that comment.
`%P`	Inserts the plate (surface) number, starting at `1` for the first plate in the job.
`%S`	Inserts the sheet number within the signature, starting at `1` for the first sheet in the job.
`%%`	Inserts a single percent character.

If you give the sequences as shown, the text inserted is the full length of a string or the required (variable) number of digits for an integer.

If you include an integer in the control sequence — for example, `%3S` — it is used to specify the length or precision of the value entered into the final string. If the result of the control sequence is a string, and that string is longer than the precision, then it is truncated after the specified number of

characters. If the result of the control sequence is an integer that has fewer digits than the precision then it will be left-padded with zeros to equal the precision.

Examples

The exact strings to enter in these fields may vary both with your workflow and with the PPF reader or readers that you intend to use.

In the following examples, the job name defined in the job is:

```
8476065 Master Document
```

In **Job Name**	In the PPF file	Notes
`%J`	`8476065 Master Document`	Default
`%7J`	`8476065`	
`%J SIG%3G`	`8476065 Master Document SIG001`	
`%P. %J`	`1. 8476065 Master Document`	Matches CIP3 plugin v1.18 and earlier

Table 26.1 Useful Job Name values

In **Sheet Name**	In the PPF file	Notes
`Sheet %S`	`Sheet 1`	Default
`%S/%G`	`1/1`	
`%P. %J`	`1. 8476065 Master Document`	Matches plugin v1.18 and earlier

Table 26.2 Useful Sheet Name values

26.2.1.5 DIG Comments

If DIG comments are present in incoming jobs, the controls in this section allow you to use some of the names included in these comments as parts of CIP3 comments specified in the **Contents** section of this dialog box.

Digital Imposition Geometry (DIG) comments follow a specification created and maintained by ScenicSoft, Inc. The comments are included in PostScript language files produced by Preps from ScenicSoft and ImpoStrip from Ultimate Technographics Inc. The comments provide enhanced support for large format imagesetters using more than one imaging head.

It is safe to select these check boxes for jobs that do not contain the relevant DIG comments.

Read Title

Select this check box to read the title given in any `%SSiDIGTitle:` comment from the incoming job. (This title may be used to set the file name for use in the **CIP3AdmJob Name** or **CIP3AdmSheet Name** fields lower in this dialog box.)

Leave this check box unselected if you wish to ignore any `%SSiDIGTitle:` comment.

Read Surface

Select this check box to read the surface given in any `%SSiDIGSurface:` comment from the incoming job. (This title may be used to set the file name for use in the **Job Name** or **Sheet Name** fields.)

Leave this check box unselected if you wish to ignore any `%SSiDIGSurface:` comment.

26.2.2 CIP3 Devices Viewer

If you choose **View** from the CIP3 module pop-up menu, the CIP3 Devices Viewer opens:

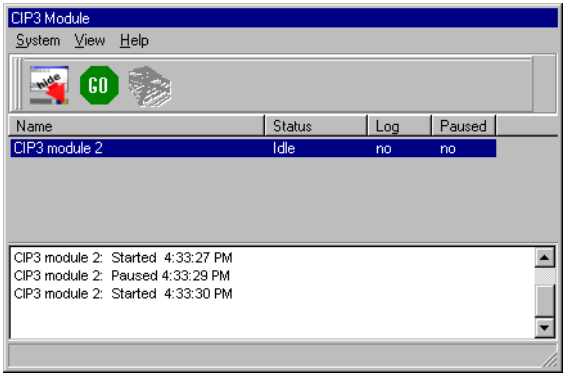


Figure 26.5 CIP3 Devices Viewer

This dialog box allows you to view the status of all the CIP3 modules that are in the workspace. This dialog consists of a table listing the status of each CIP3 module, as well as a log monitor window in which you can view progress and error messages. All messages in the log monitor window are prefixed by the name of the module to which they refer.

Name

This column lists the name of the CIP3 module that appears in the workspace. The name of the CIP3 module is specified in the Device tab, as described on page “Output options” on page 367.

Status

This column indicates the status of the module.

Log

This column indicates whether or not the module is set to record all messages in a log file (`yes/no`). See page “Log file directory” on page 15 for details on how to specify the location and other properties of the log file.

Paused

This column indicates whether or not the module has been paused (`yes/no`). You can click the **GO/STOP** button to start or stop the module.

For further details on the general controls in the dialog, see “Monitoring job processing in MWF” on page 17.

27

Windows Printer



The Windows Printer module allows you to send files that have been processed by the Harlequin RIP to a Windows printer. This module is ideal for high-end, office printing tasks and allows you to output jobs your laser printer could never handle before. It combines the Harlequin RIP and workflow capabilities of MWF to turn all non-PostScript language capable printers on the network into PostScript-compatible printers. You can send output to any network printer accessible to the computer running MWF. You can configure the format of the output using the Document Properties dialog box for the printer, which is a standard Windows dialog box.

27.1 Windows Printer workflow

The Windows Printer module is an output device module that accepts raster image data from the Harlequin RIP. The raster image data is then passed to a selected network printer. The figure below illustrates such a workflow:



Figure 27.1 Windows Printer workflow

27.2 Windows Printer controls

Right-click the Windows Printer module to display the pop-up menu showing all the configuration and viewing options:

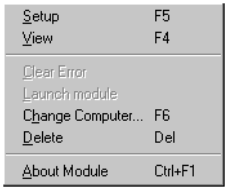


Figure 27.2 Windows Printer module pop-up

The following controls are available for the Windows Printer module:

- **Setup**—all output modules share common controls. These are described in Chapter 22, "Common Controls for the Output Modules". For details on device-specific controls, see "Device-specific controls" below.
- **View**—see "Windows Printers Viewer" on page 385.

See "Module shortcut menus" on page 18 for details on the other general options in the pop-up.

27.2.1 Device-specific controls

To configure the Windows Printer module, choose **Setup** from the Windows Printer module pop-up. The Setup for Windows Printer dialog box opens. The options in the Device tab (**Alt+D**) allow you to select device-specific settings:

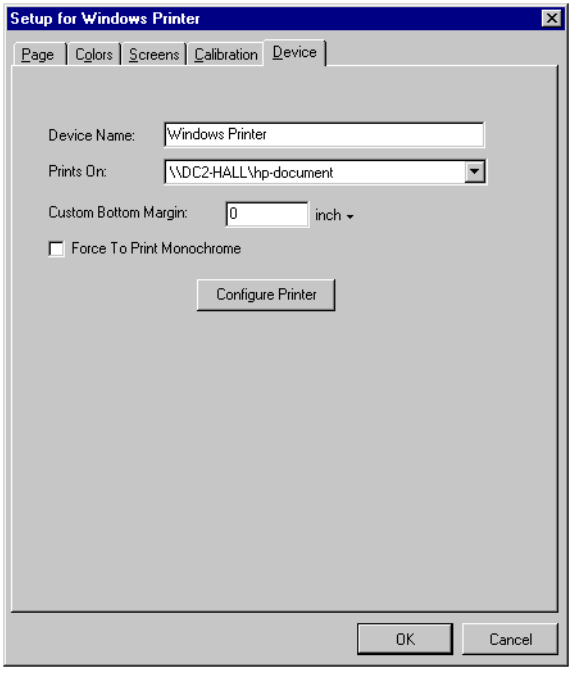


Figure 27.3 Device tab for the Windows Printer module

The options in the Device tab fall into categories—printer options, and output options—as described in the following subsections.

27.2.1.1 Printer options

Device name

Allows you to enter a new name for the module. The module name is used wherever the module is referenced: on the workspace; in log files; when linking to and from other modules.

Prints On:

MWF displays all network printers accessible from your computer in this menu. Choose the Windows printer to which you wish to send output.

27.2.1.2 Output Options

Custom Bottom Margin

You can specify a bottom margin by entering the value in this text box. You can choose the units of measurement from the menu alongside this text box.

Force To Print Monochrome

Select this check box to ensure that you output to the printer in a monochrome color format. This overrides any setting you make in the Document Properties dialog box.

Configure Printer

Click this button to set your output options. The standard Windows Document Properties dialog opens, which displays controls specific to your printer. For example, you can specify the paper size and orientation that you wish to use. For full details on the options in the Page Setup and Advanced tabs in this dialog, click ? at the top right of the dialog box and then click on the option you are interested in.

27.2.2 Windows Printers Viewer

If you choose **View** from the Windows Printer module pop-up menu, the Windows Printers Viewer opens:

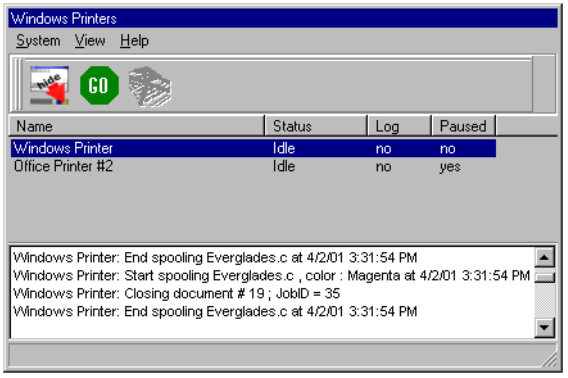


Figure 27.4 Windows Printers Viewer

This dialog box allows you to view the status of all the Windows Printer modules that are in the workspace. This dialog consists of a table listing the status of each Windows Printer module, as well as a log monitor window in which you can view progress and error messages. All messages in the log monitor window are prefixed by the name of the module to which they refer.

Name

This column lists the name of the Windows Printer module that appears in the workspace. The name of the Windows Printer module is specified in the Device tab, as described in “Device name” on page 383.

Status

This column indicates the status of the module.

Log

This column indicates whether or not the module is set to record all messages in a log file (`yes/no`). See “Log file directory” on page 15 for details on how to specify the location and other properties of the log file.

Paused

This column indicates whether or not the module has been paused (`yes/no`). You can click the **GO/STOP** button to start or stop the module.

For further details on the general controls in the dialog, see “Monitoring job processing in MWF” on page 17.

28

HP Plotter



The HP Plotter module allows you to send files that have been processed by the Harlequin RIP to a HP Plotter printer. The printer can be connected directly to the computer running MWF or through a suitable network adapter, as specified in this document. You can also print to file and transfer this file for output to a HP printer.

28.1 HP Plotter workflow

The HP Plotter module is an output device module that accepts raster image data from the Harlequin RIP. The raster image data is then passed to a HP Plotter printer. The figure below illustrates such a workflow:



Figure 28.1 HP workflow

28.2 HP Plotter controls

Right-click the HP Plotter module to display the pop-up menu showing all the configuration and viewing options:

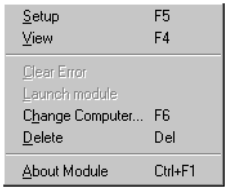


Figure 28.2 HP Plotter module pop-up

The following controls are available for the HP Plotter module:

- **Setup**—all output modules share common controls. These are described in Chapter 22, “Common Controls for the Output Modules”. For details on device-specific controls, see “Device-specific controls” below.
- **View**—see “HP Plotter Devices Viewer” on page 391.

See “Monitoring job processing in MWF” on page 17 for details on the other general options in the pop-up.

28.2.1 Device-specific controls

To configure the HP Plotter module, choose **Setup** from the HP Plotter module pop-up. The Setup for HP Plotter dialog box opens. The options in the Device tab (**Alt+D**) allow you to select device-specific settings:

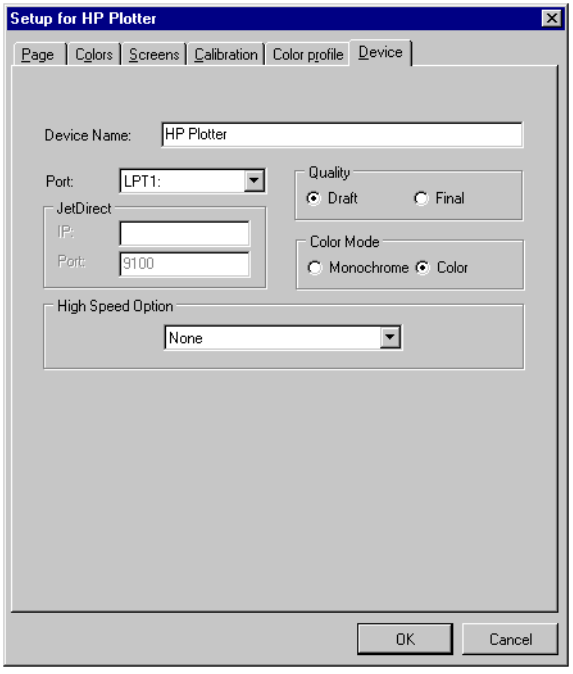


Figure 28.3 Device tab for the HP Plotter module

The options in the Device tab fall into categories—printer options, and output options—as described in the following subsections.

28.2.1.1 Printer options

Device name

Allows you to enter a new name for the module. The module name is used wherever the module is referenced: on the workspace; in log files; when linking to and from other modules.

Port

Choose the port through which your computer is connected to the printer. You can connect to the printer using a parallel port (`LPT1:`, `LPT2:`, `LPT3:`) or a JetDirect printer server. (`JetDirect`). Alternatively, choose `FILE:` to output to a file. If you choose this option, a Print File Name dialog opens when you submit a job. You must enter the full path of where you wish to send the output file, including the `.prn` extension in the file name.

JetDirect

The options in the JetDirect section are disabled unless you choose `JetDirect` from the **Port** menu.

IP: Enter the numeric IP address of the JetDirect printer server to which you wish to send output.

Port: Enter the port number that you wish to use. If you are using an external JetDirect print server you must set the **Port Number** to `9100`, or a similar number.

Some external print servers can drive several printers simultaneously. In this case the different physical connections or ports have their own numbers (which may vary with the type of server). For example, on an external JetDirect unit with three output ports, the physical ports named 1, 2, and 3 have port numbers `9100`, `9101`, and `9102`.

28.2.1.2 Output options

Quality

Choose either `Draft` or `Final` as the quality mode.

Color Mode

Choose either `Monochrome` or `Color` as the color mode.

High Speed Option

You can choose to print at a higher speed by choosing an option from this menu. The default is `None`, which prints at the normal speed. The other options are: `Fast`, `Faster`, and `Fastest`. You should experiment with these options to see which option provides the best compromise between speed and quality of output.

28.2.2 HP Plotter Devices Viewer

If you choose **View** from the HP Plotter module pop-up menu, the HP Plotter Devices Viewer window opens:

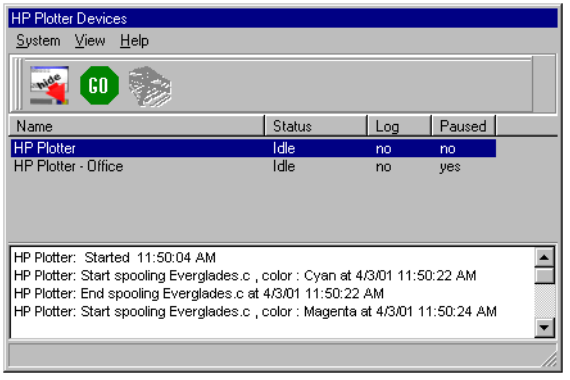


Figure 28.4 HP Plotter Devices Viewer

This dialog box allows you to view the status of all the HP Plotter modules that are in the workspace. This dialog consists of a table listing the status of each HP Plotter module, as well as a log monitor window in which you can view progress and error messages. All messages in the log monitor window are prefixed by the name of the module to which they refer.

Name

This column lists the name of the HP Plotter module that appears in the workspace. The name of the HP Plotter module is specified in the Device tab, as described in “Printer options” on page 389.

Status

This column indicates the status of the module.

Log

This column indicates whether or not the module is set to record all messages in a log file (`yes/no`). See "Log file directory" on page 15 for details on how to specify the location and other properties of the log file.

Paused

This column indicates whether or not the module has been paused (`yes/no`). You can click the **GO/STOP** button to start or stop the module.

For further details on the general controls in the dialog, see "Monitoring job processing in MWF" on page 17.

29

HP Printer

The HP Printer module allows you to send files that have been processed by the Harlequin RIP to a supported HP printer to create an automatically color managed proof using pre-installed calibration and color profiles.

You can output to the following printer, if you have the relevant password:

- HP DesignJet 5000

29.1 HP Printer workflow

The HP Printer module is an output device module that accepts raster image data from the Harlequin RIP. The HP Printer module color manages the raster image data, which is then passed to the printer driver for the HP DesignJet 5000 to create a proof. The figure below illustrates such a workflow:



Figure 29.1 HP Printer workflow

29.2 HP Printer controls

Right-click the HP Printer module to display the pop-up menu showing all the configuration and viewing options:

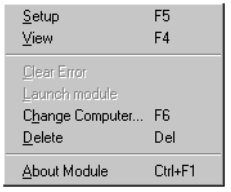


Figure 29.2 HP Printer module pop-up

The following controls are available for the HP Printer module:

- **Setup**—all output modules share common controls. These are described in Chapter 22, “Common Controls for the Output Modules”. For details on device-specific controls, see “Device-specific controls” below.
- **View**—see “HP Printer Viewer” on page 398.

See “Monitoring job processing in MWF” on page 17 for details on the other general options in the pop-up.

29.2.1 Device-specific controls

To configure the HP Printer module, choose **Setup** from the HP Printer module pop-up. The Setup for HP Printer dialog box opens. The options in the Device tab (**Alt+D**) allow you to select device-specific settings:

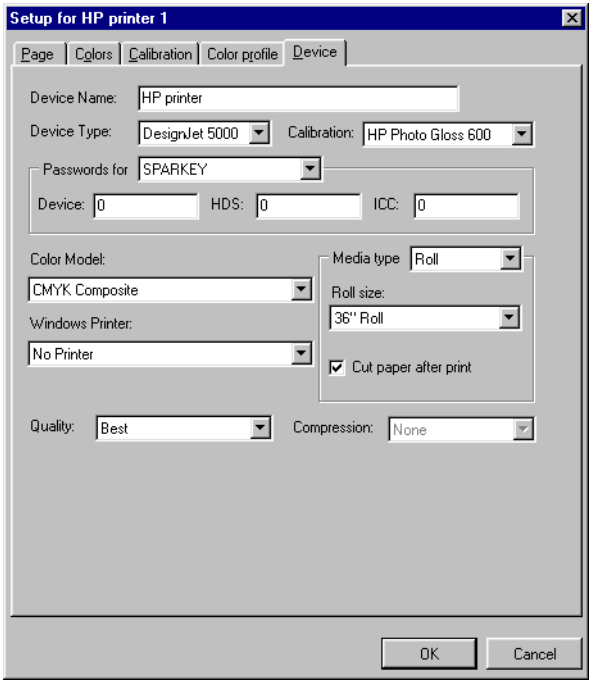


Figure 29.3 Device tab for the HP Printer module

The options in the Device tab fall into categories—printer options, and output options—as described in the following subsections.

29.2.1.1 Printer options

Device name

Allows you to enter a new name for the module. The module name is used wherever the module is referenced: on the workspace; in log files; when linking to and from other modules.

Device type

Choose the device that you wish to output to from this menu. Currently, you can output to the HP DesignJet 5000.

Calibration

Choose a calibration profile to ensure quality printing. You must choose a calibration profile that matches the paper type and resolution at which you are printing.

Passwords for

To enable output to the HP DesignJet 5000, you must enter a password for the device as well as passwords to enable the use of color management in the Harlequin RIP. Choose the computer on which the Harlequin RIP is running from this menu and enter valid passwords in the **Device**, **HDS** and **ICC** text boxes.

Device

You must enter a valid password in this text box to enable the use of your chosen device. If necessary, speak to your vendor to obtain a password.

HDS

You must enter a valid password in this text box to enable the use of HDS screening. If necessary, speak to your vendor to obtain a password. You can choose the particular type of HDS screening that you wish to use in the Colors tab, as described in "Harlequin Dispersed Screening options" on page 319. However, you should not change the default screening, which is HDS Super Fine, because the calibration and color profiles were made using this type of screening.

ICC

You must enter a valid password in this text box to enable the use of color profiles. Color profiles are supplied with the module to ensure the production of color managed proofs. If necessary, speak to your vendor to obtain a password.

29.2.1.2 Output options

Color Model

You can output to the HP DesignJet 5000 in one of two modes. `PhotoInk Composite` allows you to output with 6 inks (CMYK, Cyan Light, Magenta Light) using Harlequin Dispersed Screening (HDS). To use HDS screening, you must also enter a valid password in the **Passwords for** section of the Device tab. `CMYK Composite` sends CMYK data to the printer and uses the default screening for the device to calculate the Cyan Light and Magenta Light components.

Windows Printer

This menu lists all the Windows printers available on your system. To output to the HP DesignJet 5000, you must add the printer to the system by supplying the relevant printer driver. For example, you can use the HP printer driver from the CD supplied with the printer or from the HP website.

Media Type

Choose the type of media that you are using from this menu. The options are `Sheet` and `Roll`.

Paper Size/Roll Size

If you chose `Sheet` as the **Media Type**, you must choose the exact paper size that is loaded in the printer from this menu. If you chose `Roll` as the **Media Type**, you must choose the roll size from this menu. When using roll media you can also choose to **Cut paper after print**.

Cut paper after print

Select this check box to use the automatic cutter to cut roll media after each job. You must also ensure that the cutter is enabled on your printer. This option is only available if the **Media Type** is `Roll`.

Quality

The options in this list allow you to select a print quality setting for the printer. Choose `Fast` for lower print quality but faster output. Choose `Best` for higher print quality but slower output. Or, choose `Normal` for medium quality and medium print speed. If you select `Printer Default`, the quality is controlled by the selection made on the front

panel of the printer. Refer to your printer manual for help in choosing the most appropriate quality setting based upon the resolution and print speed of the device.

Compression

The options that appear in this menu are methods of coding the data sent to the printer.

`None` sends the data uncompressed, so the data size is always a predictable value though sometime larger than it need be.

`Run Length` performs a lossless compression that enables the exact data to be recreated. For many images, using `Run Length` will reduce the size of the data and the time taken to transmit it. For some very complex pages containing large areas of fine detail, it may take longer to send a page coded with `Run Length` than to send the same page coded with `None`.

29.2.2 HP Printer Viewer

If you choose **View** from the HP Printer module pop-up menu, the HP Printer Viewer window opens:

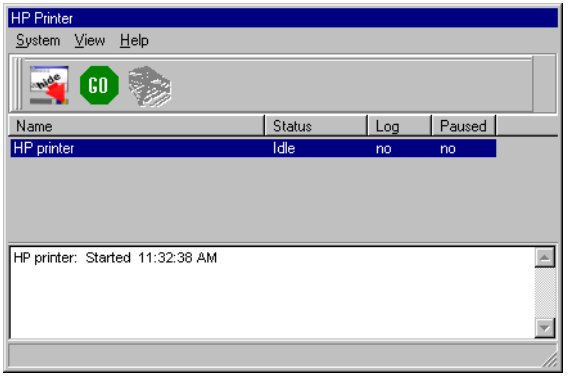


Figure 29.4 HP Printer Viewer

This dialog box allows you to view the status of all the HP Printer modules that are in the workspace. This dialog consists of a table listing the status of each HP Printer module, as well as a log monitor window in which you can view progress and error messages. All messages in the log monitor window are prefixed by the name of the module to which they refer.

Name

This column lists the name of the HP Printer module that appears in the workspace. The name of the HP Printer module is specified in the Device tab, as described in "Printer options" on page 395.

Status

This column indicates the status of the module.

Log

This column indicates whether or not the module is set to record all messages in a log file (`yes/no`). See "Log file directory" on page 15 for details on how to specify the location and other properties of the log file.

Paused

This column indicates whether or not the module has been paused (`yes/no`). You can click the **GO/STOP** button to start or stop the module.

For further details on the general controls in the dialog, see "Monitoring job processing in MWF" on page 17.

30

Epson Printer



The Epson Printer module allows you to send files that have been processed by the Harlequin RIP to a supported Epson printer to create an automatically color managed proof using pre-installed calibration and color profiles.

You can output to the following printers, if you have the relevant password:

- Epson Stylus Pro 5000
- Epson Stylus Pro 5500
- Epson Stylus Pro 7000
- Epson Stylus Pro 9000
- Epson Stylus Pro 10000

30.1 Epson Printer workflow

The Epson Printer module is an output device module that accepts raster image data from the Harlequin RIP. The Epson Printer module color manages the raster image data, which is then passed to the printer driver for your chosen printer to create a proof. The figure below illustrates such a workflow:



Figure 30.1 Epson Printer workflow

Note that the Epson Printer module can only be used in conjunction with the Harlequin RIP module. For example, it cannot be used with the Film Saver or Composition Server module.

30.1.1 Configure Harlequin RIP memory

When working with the Epson Printer module it is important that you correctly configure the Harlequin RIP module's memory settings, otherwise the printer module may stop working or produce errors, such as "`Print buffer is too small`".

To configure RIP memory, access the Harlequin RIP's set up dialog box and locate the memory settings panel in the General tab, as shown in Figure 30.2. Adjust the settings for Print buffer and Band buffer so that the Print buffer has 18000 Kb more memory, that is:

```
Print buffer = Band Buffer + 18000 Kb
```

For example, if the Band Buffer is using 2048 Kb, allocate 20000 Kb to the Print buffer.

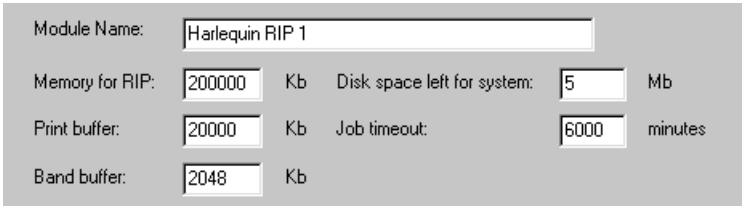


Figure 30.2 Memory settings in the Harlequin RIP

30.2 Epson Printer controls

Right-click the Epson Printer module to display the pop-up menu showing all the configuration and viewing options:

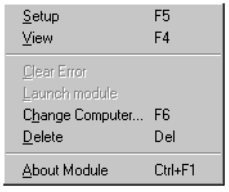


Figure 30.3 Epson Printer module pop-up

The following controls are available for the Epson Printer module:

- Setup—all output modules share common controls. These are described in Chapter 22, “Common Controls for the Output Modules”. For details on device-specific controls, see “Device-specific controls” below.
- View—see “Epson Printer Viewer” on page 408.

See “Monitoring job processing in MWF” on page 17 for details on the other general options in the pop-up.

30.2.1 Device-specific controls

To configure the Epson Printer module, choose **Setup** from the Epson Printer module pop-up. The Setup for Epson Printer dialog box opens. The options in the Device tab (**Alt+D**) allow you to select device-specific settings:

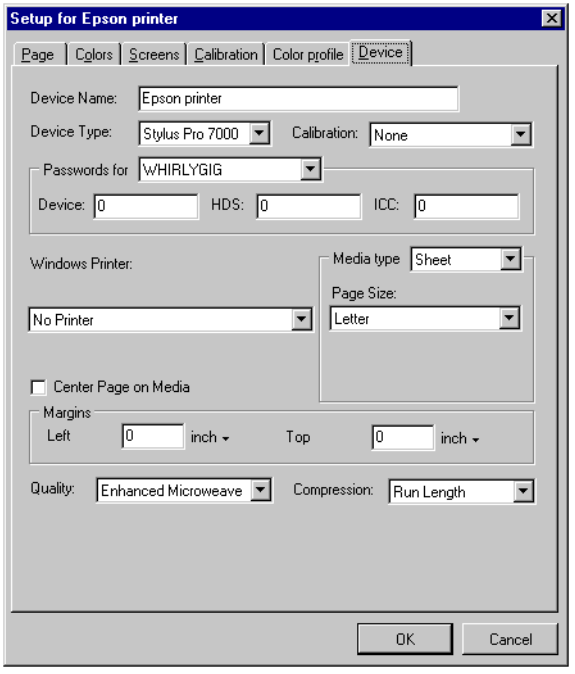


Figure 30.4 Device tab for the Epson Printer module

The options in the Device tab fall into categories—printer options, password options and output options—as described in the following subsections.

30.2.1.1 Printer options

Device name

Allows you to enter a new name for the module. The module name is used wherever the module is referenced: on the workspace; in log files; when linking to and from other modules.

Device Type

Choose the device that you wish to use to create a proof from this menu. You must enter a valid password for the device in the **Passwords for** section.

Calibration

Choose the paper that you wish to use to create a proof from this menu. A pre-installed calibration profile and color profile for your chosen device and paper type will be used to ensure the creation of an automatically color managed proof.

30.2.1.2 Password options

Passwords for

To enable output to your chosen printer, you must enter a password for the device as well as passwords to enable the use of color management in the Harlequin RIP. Choose the computer on which the Harlequin RIP is running from this menu and enter valid passwords in the **Device**, **HDS** and **ICC** text boxes.

Device

You must enter a valid password in this text box to enable the use of your chosen device. If necessary, speak to your vendor to obtain a password.

HDS

You must enter a valid password in this text box to enable the use of HDS screening. If necessary, speak to your vendor to obtain a password. You can choose the particular type of HDS screening that you wish to use in the Colors tab, as described in “Harlequin Dispersed Screening options” on page 319. However, you should not change the default screening, which is HDS Super Fine, because the calibration and color profiles were made using this type of screening.

ICC

You must enter a valid password in this text box to enable the use of color profiles. Color profiles are supplied with the module to ensure the production of color managed proofs. If necessary, speak to your vendor to obtain a password.

30.2.1.3 Output options

Windows Printer

This menu lists all the Windows printers available on your system. To output to an Epson device, you must add the printer to the system by supplying the relevant printer driver. For example, the Epson 7000 requires the Epson printer driver from the CD supplied with the printer or from the Epson website.

Media Type

Choose the type of media that you are using from this menu. The options are `Sheet` and `Roll`.

Paper Size/Roll Size

If you chose `Sheet` as the **Media Type**, you must choose the exact paper size that is loaded in the printer from this menu. If you chose `Roll` as the **Media Type**, you must choose the roll size from this menu. When using roll media you can also choose to **Cut paper after print**.

Cut paper after print

Select this check box to use the automatic cutter to cut roll media after each job. You must also ensure that the cutter is enabled on your printer. This option is only available if the **Media Type** is `Roll`.

Center Page on Media

Select this check box to center the page on the selected media.

Margins

You can specify a **Left** and **Top** margin by entering values in these text boxes. Choose the units of measurement from the menus alongside these text boxes.

Quality

The options that appear in this menu are methods of driving the printer, which offer combinations of speed and image quality which may depend on the printer's capabilities.

It is recommended that you use the **Enhanced Microweave** option because the calibration and color profiles were created using this quality setting, otherwise choose according to the following criteria:

Choose **Enhanced Microweave** when you need optimum quality and are prepared to wait longer for the printed image.

Choose **Standard Microweave** if you wish to compromise between speed and quality of output.

Choose **Faster Microweave** if you want fast output and color quality is not a high priority. For example, you should use this mode when producing positioning proofs.

Compression

The options that appear in this menu are methods of coding the data sent to the printer.

None sends the data uncompressed, so the data size is always a predictable value though sometime larger than it need be.

Run Length performs a lossless compression that enables the exact data to be recreated. For many images, using **Run Length** will reduce the size of the data and the time taken to transmit it. For some very complex pages containing large areas of fine detail, it may take longer to send a page coded with **Run Length** than to send the same page coded with **None**.

30.2.2 Epson Printer Viewer

If you choose **View** from the Epson Printer module pop-up menu, the Epson Printer Viewer window opens:

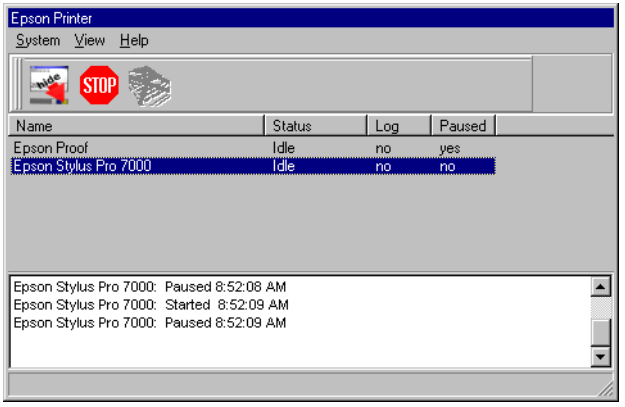


Figure 30.5 Epson Printer Viewer

This dialog box allows you to view the status of all the Epson Printer modules that are in the workspace. This dialog consists of a table listing the status of each Epson Printer module, as well as a log monitor window in which you can view progress and error messages. Messages in the log monitor window are prefixed by the name of the module to which they refer.

Name

This column lists the name of the Epson Printer module that appears in the workspace. The name of the Epson Printer module is specified in the Device tab, as described on “Printer options” on page 404.

Status

This column indicates the status of the module.

Log

This column indicates whether or not the module is set to record all messages in a log file (`yes/no`). See “Log file directory” on page 15 for details on how to specify the location and other properties of the log file.

Paused

This column indicates whether or not the module has been paused (`yes/no`). You can click the **GO/STOP** button to start or stop the module.

For further details on the general controls in the dialog, see "Monitoring job processing in MWF" on page 17.

31

Océ



The Océ module allows you to you to send TIFF files to an Océ device. The models that you can output to are the 9400 and the 9455. You can send TIFF files to these devices at a resolution of 300 dpi (dots per inch). You can also print to file and transfer this file for output to an Océ device.

31.1 Océ workflow

The Océ module is an output device module that accepts raster image data from the Harlequin RIP. The raster image data is then passed to an Océ device. The figure below illustrates such a workflow:



Figure 31.1 Océ workflow

31.2 Océ controls

Right-click the Océ module to display the pop-up menu showing all the configuration and viewing options:

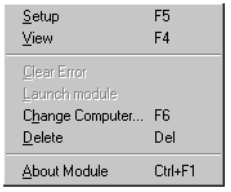


Figure 31.2 Océ module pop-up

The following controls are available for the Océ module:

- **Setup**—all output modules share common controls. These are described in Chapter 22, “Common Controls for the Output Modules”. For details on device-specific controls, see “Device-specific controls” below.
- **View**—see “Océ Devices Viewer” on page 414.

See “Monitoring job processing in MWF” on page 17 for details on the other general options in the pop-up.

31.2.1 Device-specific controls

To configure the Océ module, choose **Setup** from the Océ module pop-up. The Setup for Océ dialog box opens. The options in the Device tab (**Alt+D**) allow you to select device-specific settings:

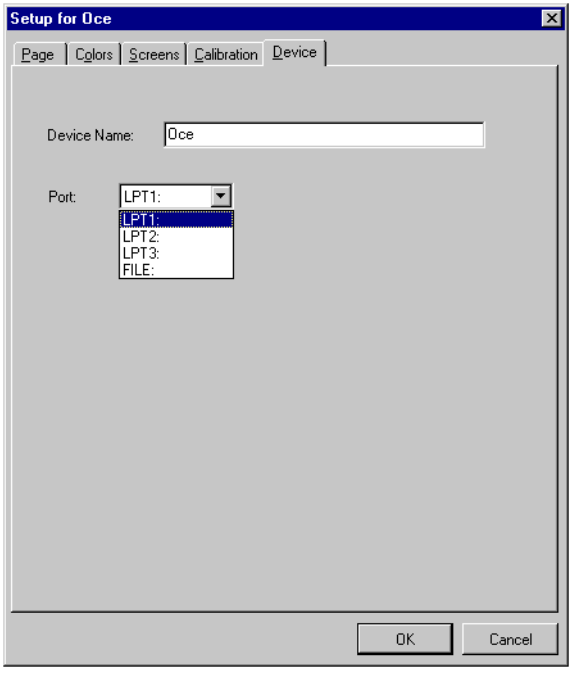


Figure 31.3 Device tab for the Océ module

The options in the Device tab are all output options—as described in the following subsection.

31.2.1.1 Output options

Device name

Allows you to enter a new name for the module. The module name is used wherever the module is referenced: on the workspace; in log files; when linking to and from other modules.

Port

Choose the port through which your computer is connected to the printer. You can connect to the printer using a parallel port (`LPT1:`, `LPT2:`, `LPT3:`). Alternatively, choose `FILE:` to output to a file. If you choose this option, a Print File Name dialog opens when you submit a job. You must enter the full path of where you wish to send the output file, including the `.prn` extension in the file name.

31.2.2 Océ Devices Viewer

If you choose **View** from the Océ module pop-up menu, the Océ Devices Viewer window opens:

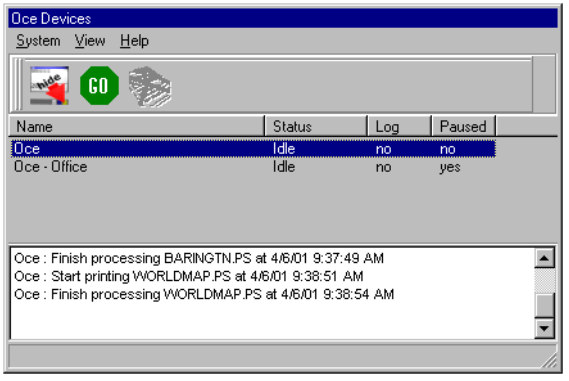

Oce Devices
System View Help
GO
Name Status Log Paused
Oce Idle no no
Oce - Office Idle no yes
Oce : Finish processing BARINGTN.PS at 4/6/01 9:37:49 AM
Oce : Start printing WORLDMAP.PS at 4/6/01 9:38:51 AM
Oce : Finish processing WORLDMAP.PS at 4/6/01 9:38:54 AM

Figure 31.4 Océ Devices Viewer

This dialog box allows you to view the status of all the Océ modules that are in the workspace. This dialog consists of a table listing the status of each Océ module, as well as a log monitor window in which you can view progress and error messages. All messages in the log monitor window are prefixed by the name of the module to which they refer.

Name

This column lists the name of the Océ module that appears in the workspace. The name of the Océ module is specified in the Device tab, as described in “Output options” on page 413.

Status

This column indicates the status of the module.

Log

This column indicates whether or not the module is set to record all messages in a log file (`yes/no`). See "Log file directory" on page 15 for details on how to specify the location and other properties of the log file.

Paused

This column indicates whether or not the module has been paused (`yes/no`). You can click the **GO/STOP** button to start or stop the module.

For further details on the general controls in the dialog, see "Monitoring job processing in MWF" on page 17.

32

Max Imagesetter



The Max Imagesetter module allows you to send files that have been processed by the Harlequin RIP to any imagesetter connected by a HighWater card to the computer running MWF. You can use this module to track the media used by the imagesetter and to specify other output options, such as the amount of space to leave between pages of a job.

32.1 Max Imagesetter workflow

The Max Imagesetter module is an output device module that accepts raster image data from the Harlequin RIP. The raster image data is then passed to an imagesetter. The figure below illustrates such a workflow:



Figure 32.1 Max Imagesetter workflow

32.2 Max Imagesetter controls

Right-click the Max Imagesetter module to display the pop-up menu showing all the configuration and viewing options:

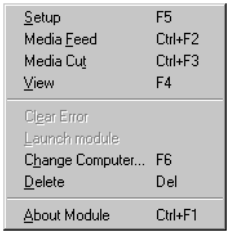


Figure 32.2 Max Imagesetter module pop-up

The following controls are available for the Max Imagesetter module:

- **Setup**—all output modules share common controls. These are described in Chapter 22, “Common Controls for the Output Modules”. For details on device-specific controls, see “Device-specific controls” below.
- **Media Feed**—see “Media Feed” on page 423.
- **Media Cut**—see “Media Cut” on page 423.
- **View**—see “Max Imagesetter Devices Viewer” on page 423.

See “Module shortcut menus” on page 18 for details on the other general options in the pop-up.

32.2.1 Device-specific controls

To configure the Max Imagesetter module, choose **Setup** from the Max Imagesetter module pop-up. The Setup for Max Imagesetter dialog box opens. The options in the Device tab (**Alt+D**) allow you to select device-specific settings:

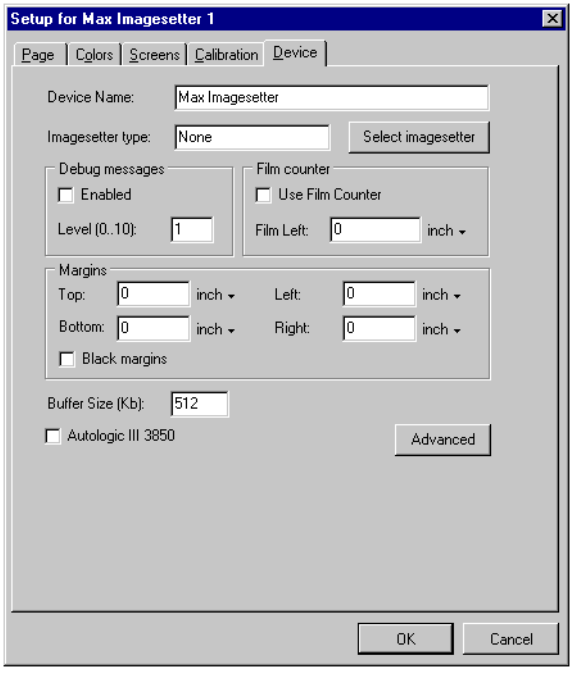


Figure 32.3 Device tab for the Max Imagesetter module

The options in the Device tab fall into categories—output options, and media tracking options—as described in the following subsections.

32.2.1.1 Output options

Device name

Allows you to enter a new name for the module. The module name is used wherever the module is referenced: on the workspace; in log files; when linking to and from other modules.

Imagesetter type

Click **Select imagesetter** to choose the imagesetter to which you wish to send output. The imagesetter that you choose is displayed in this text box.

Select imagesetter

Click this button to open the Select Imagesetter dialog box, which contains the following controls:

Interface Card Number

Enter the slot number of the interface card to which your imagesetter is connected.

Imagesetter Choose the imagesetter to which you wish to send output from this menu.

If the number of the interface card is incorrect a message to this effect will appear in the window of this dialog.

Debug messages

Enabled Select this check box to enable the production of debug messages when sending output to an imagesetter. This may help you to diagnose a problem. The messages appear in the View window for the module, and are added to the general log file, if the module is set to add messages to the log file.

Level (0…10) Enter the level of detail that you wish MWF to use when generating the debug messages. Higher numbers provide more detail.

Margins

Top/Bottom/Left/Right

You can specify page margins by entering values in these text boxes. Choose the units of measurement from the menu alongside these text boxes.

Black margins Select this check box to use black colored margins when printing to indicate the non-printable area.

Buffer Size

Enter a value specifying the buffer size (in KB) to use when processing files. The default value is `512` KB.

Autologic III 3850

Select this check box to connect to an Autologic III 3850 imagesetter. The imagesetter must be connected to the computer running MWF. When you click the **Advanced** button, some extra options specific to the Autologic III 3850 device will appear in the Advanced dialog box, allowing you to use a device configuration stored in the imagesetter.

Advanced

Click this button to display the Advanced dialog box, allowing you to specify further configuration options for your imagesetter.

Use Serial Commands

Select this check box to enable the use of serial commands when sending data to the interface card.

Use Custom Exposure & Density

Select this check box to set the imagesetter to use the values in the **Exposure** and **Density** text boxes when printing.

Exposure Enter the exposure that you wish to use when printing. If you select the **Use Custom Exposure & Density** check box, this value overrides any values specified in the control panel of the imagesetter.

Density Enter the density that you wish to use when printing. If you select the **Use Custom Exposure & Density** check box, this value overrides any values specified in the control panel of the imagesetter.

The following controls appear in this dialog if you have selected the **Autologic III 3850** check box and this imagesetter is connected to the computer running MWF:

Com Port Enter the number of the communications port to which the Autologic III 3850 imagesetter is connected.

Use 3850 Config #

Select this check box to use a device configuration stored in the imagesetter. You must enter the number of the configuration that you wish to use in the accompanying text box.

32.2.1.2 Media tracking options

Film Counter

Use Film Counter:

Select this check box if you wish to track the media in your device. To do this, you must advance the media using the **Media Feed** pop-up menu control, as described in "Media Feed" on page 423. You must not advance media using the imagesetter controls.

You must set the **Film Left** counter whenever you change a film roll.

Film Left: Enter the length of the film roll when the film is changed. Choose the units of measurement from the menu alongside this text box. Once you have initially set the **Film Left** counter, it changes to reflect the amount of film left in the imagesetter.

32.2.2 Media Feed

If you choose **Media Feed** in the Max Imagesetter module pop-up menu, the media is advanced by the amount specified in the control panel of the imagesetter. If you wish to track the media in your imagesetter, you must always advance the media using this menu option, rather than advancing the media using the imagesetter controls.

32.2.3 Media Cut

If you choose **Media Cut** in the Max Imagesetter module pop-up menu, the imagesetter is instructed to cut the media. If you wish to advance the media before cutting it, use the **Media Feed** menu option, as described above.

32.2.4 Max Imagesetter Devices Viewer

If you choose **View** from the Max Imagesetter module pop-up menu, the Max Imagesetter Devices Viewer window opens:

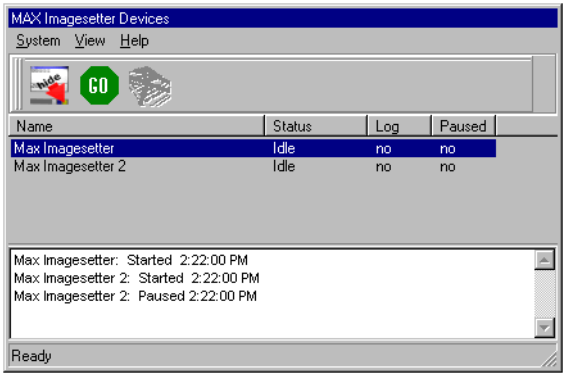


Figure 32.4 Max Imagesetter Devices Viewer

This dialog box allows you to view the status of all the Max Imagesetter modules that are in the workspace. This dialog consists of a table listing the status of Max Imagesetter module, as well as a log monitor window in which you can view progress and error messages. All messages in the log monitor window are prefixed by the name of the module to which they refer.

Name

This column lists the name of the Max Imagesetter module that appears in the workspace. The name of the Max Imagesetter module is specified in the Device tab, as described in "Output options" on page 419.

Status

This column indicates the status of the module.

Log

This column indicates whether or not the module is set to record all messages in a log file (`yes/no`). See "Log file directory" on page 15 for details on how to specify the location and other properties of the log file.

Paused

This column indicates whether or not the module has been paused (`yes/no`). You can click the **GO**/**STOP** button to start or stop the module.

There are also some device-specific controls that are accessible from the **System** menu.

Media Feed

If you choose this menu option, the media in the imagesetter is advanced, as discussed in "Media Feed" on page 423.

Media Cut

If you choose this menu option, the media in the imagesetter is cut, as discussed in "Media Cut" on page 423.

For further details on the general controls in the dialog, see "Monitoring job processing in MWF" on page 17.

33

ECRM SCSI



The ECRM SCSI Imagesetter module allows you to send files that have been processed by the Harlequin RIP to an ECRM SCSI imagesetter. You can use this module to track the media used by the imagesetter and to specify other output options, such as page layout and the punch mechanism controls.

33.1 ECRM SCSI Imagesetter workflow

The ECRM SCSI Imagesetter module is an output device module that accepts raster image data from the Harlequin RIP. The raster image data is then passed to an ECRM SCSI imagesetter The figure below illustrates such a workflow:

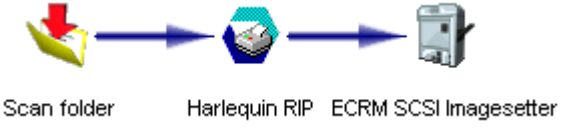


Figure 33.1 ECRM SCSI workflow

33.2 ECRM SCSI Imagesetter controls

Right-click the ECRM SCSI Imagesetter module to display the pop-up menu showing all the configuration and viewing options:

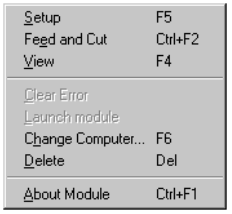


Figure 33.2 ECRM SCSI Imagesetter module pop-up

The following controls are available for the ECRM SCSI Imagesetter module:

- **Setup**—all output modules share common controls. These are described in Chapter 22, “Common Controls for the Output Modules”. For details on device-specific controls, see “Device-specific controls” below.
- **Feed and Cut**—see “Feed and Cut” on page 432.
- **View**—see “ECRM SCSI Imagesetter Viewer” on page 432.

See “Module shortcut menus” on page 18 for details on the other general options in the pop-up.

33.2.1 Device-specific controls

To configure the ECRM SCSI Imagesetter module, choose **Setup** from the ECRM SCSI Imagesetter module pop-up. The Setup for ECRM SCSI Imagesetter dialog box opens. The options in the Device tab (**Alt+D**) allow you to select device-specific settings:

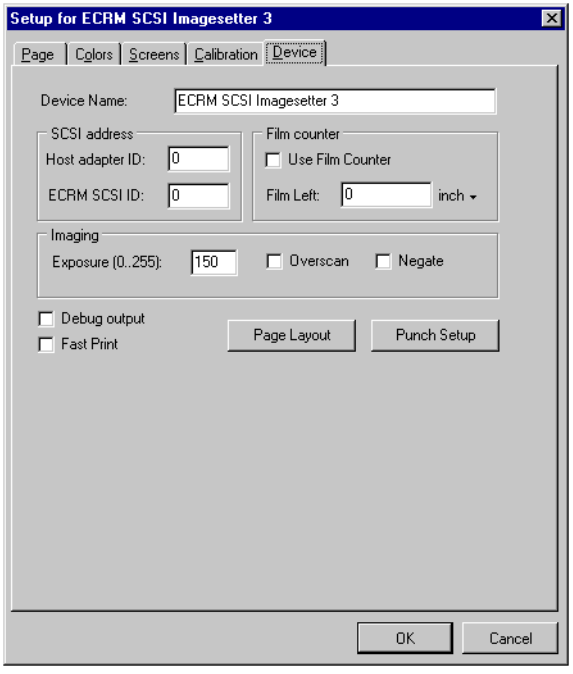


Figure 33.3 Device tab for the ECRM SCSI Imagesetter module

The options in the Device tab fall into categories—output options, media tracking options, page layout options, and punch setup options—as described in the following subsections.

33.2.1.1 Output options

Device name

Allows you to enter a new name for the module. The module name is used wherever the module is referenced: on the workspace; in log files; when linking to and from other modules.

SCSI address

Host Adapter ID: A host adapter is the card that connects your computer to the SCSI-bus. An example would be a PCI SCSI host adapter like the Adaptec 2940UW. Adaptec set all their host adapters to ID 7 by default. Enter the ID for your host adapter.

ECRM SCSI ID: Several devices can be connected to the SCSI interface. Enter the SCSI ID for your ECRM device.

Imaging

Exposure (0...255)

Enter a value to adjust the exposure setting of the imagesetter.

Overscan

Select this check box to increase the image's scan line by one bit.

Negate

Select this check box to override all exposure settings specified in the control panel of the imagesetter.

Debug output

Select this check box to generate more detailed log file messages when sending output to the imagesetter. This may help you diagnose a problem. The messages appear in the Viewer window for the module, and are added to the general log file, if the module is set to add messages to the log file.

Fast Print

Select this check box to increase the printing speed of the imagesetter. This may reduce the output quality.

33.2.1.2 Media tracking options

Film Counter

Use Film Counter:

Select this check box if you wish to track the media in your device. In order to track the media in your device, you must advance the media using the **Feed and Cut** pop-up menu control, as described in "Feed and Cut" on page 432. You must not advance the media using the imagesetter controls.

You must set the **Film Left** counter whenever you change a film roll.

Film Left: Enter the length of the film roll when the film is changed. Choose the units of measurement from the menu alongside this text box. Once you have initially set the **Film Left** counter, it changes to reflect the amount of film left in the imagesetter.

33.2.1.3 Page layout options

Page Layout

Click this button to open the Page Layout dialog box.

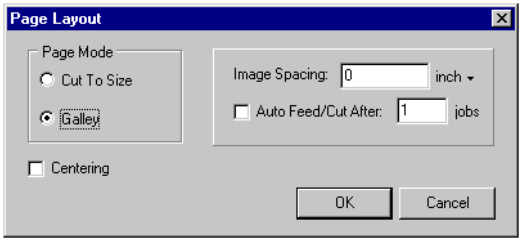


Figure 33.4 Page Layout dialog box

The options in the Page Layout dialog box change, depending on which radio button you have selected in the Page Mode section.

Page Mode

Cut To Size Select this radio button to create a margin around the page, which allows you to cut the film to size. If you select this radio button, the following options appear:

Top Trim Margin/Bottom Trim Margin:
Enter a value for the top and bottom trim margins in these text boxes. Choose the units of measurement from the menus alongside the text boxes.

Galley Select this radio button to configure the amount of space between pages. If you select this radio button, the following options appear:

Image spacing
Enter a value for the amount of space that you want between pages. Choose the units of measurement from the menu alongside this text box.

Auto Feed/Cut After...jobs
Select this check box to automatically feed and cut the media after the number of jobs specified in the accompanying text box.

Centering

Select this check box to center the page on the overall printable area.

33.2.1.4 Punch setup options

Punch Setup

Click this button to open the Punch Setup dialog box.

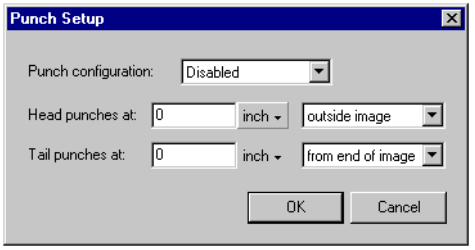


Figure 33.5 Punch Setup dialog box

The options in the Punch Setup dialog box allow you to control the imagesetter's punch mechanism. Punch holes are used for the easy alignment of color separation media for proofing and platemaking.

Punch Configuration

The options in this menu determine the use of the punching mechanism. Choose **`Disabled`** to disable the use of the internal punching mechanism. Choose **`Head only`** to punch before the page. Choose **`Head and tail`** to punch before and after the page.

Head punches at....

Enter a value specifying exactly where the punch hole at the head of the page should be made. Choose the units of measurement from the menu alongside this text box. You must also choose where the punch holes are made in relation to the page (**`inside image`** or **`outside image`**). For example, you may choose to make punch holes **`2 cm outside image`**, which would place the holes 2 cm above the leading edge of the page.

Tail punches at....

Enter a value specifying exactly where the punch hole at the tail of the page should be made. Choose the units of measurement from the menu alongside this text box. You must also choose where the punch holes are made in relation to the page (**`from end of image`** or **`from head punch`**). For example, you may choose to make punch holes **`2 cm from end of image`**, which would place the holes 2 cm from the bottom of the page.

33.2.2 Feed and Cut

If you choose **Feed and Cut** in the ECRM SCSI Imagesetter module pop-up menu, the media is advanced by the amount specified in the control panel of the imagesetter and then cut. If you wish to track the media in your imagesetter, you must always advance the media using this menu option, rather than advancing the media using the imagesetter controls.

33.2.3 ECRM SCSI Imagesetter Viewer

If you choose **View** from the ECRM SCSI Imagesetter module pop-up menu, the ECRM SCSI Imagesetter Devices Viewer opens:

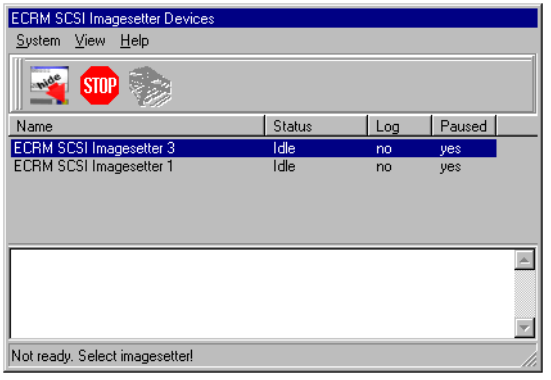


Figure 33.6 ECRM SCSI Imagesetter Devices Viewer

This dialog box allows you to view the status of all the ECRM SCSI Imagesetter modules that are in the workspace. This dialog consists of a table listing the status of each ECRM SCSI Imagesetter module, as well as a log monitor window in which you can view progress and error messages. All messages in the log monitor window are prefixed by the name of the module to which they refer.

Name

This column lists the name of the ECRM SCSI Imagesetter module that appears in the workspace. The name of the ECRM SCSI Imagesetter module is specified in the Device tab, as described in “Output options” on page 427.

Status

This column indicates the status of the module.

Log

This column indicates whether or not the module is set to record all messages in a log file (`yes/no`). See "Log file directory" on page 15 for details on how to specify the location and other properties of the log file.

Paused

This column indicates whether or not the module has been paused (`yes/no`). You can click the **GO/STOP** button to start or stop the module.

There are also some device-specific controls that are accessible from the **System** menu.

Feed and Cut

If you choose this menu option, the media in the imagesetter is advanced and then cut, as discussed in "Feed and Cut" on page 432.

For further details on the general controls in the dialog, see "Monitoring job processing in MWF" on page 17.

34

ULTRE SCSI Imagesetter



The Ultre SCSI Imagesetter module allows you to send files that have been processed by the Harlequin RIP to an Ultre SCSI imagesetter. You can use this module to track the media used by the imagesetter and to specify other output options, such as the amount of space to leave between pages of a job.

34.1 Ultre SCSI Imagesetter workflow

The Ultre SCSI Imagesetter module is an output device module that accepts raster image data from the Harlequin RIP. The raster image data is then passed to an Ultre SCSI imagesetter The figure below illustrates such a workflow:



Figure 34.1 Ultre SCSI workflow

34.2 Ultre SCSI Imagesetter controls

Right-click the Ultre SCSI Imagesetter module to display the pop-up menu showing all the configuration and viewing options:

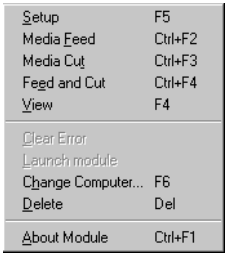


Figure 34.2 Ultre SCSI Imagesetter module pop-up

The following controls are available for the Ultre SCSI Imagesetter module:

- **Setup**—all output modules share common controls. These are described in Chapter 22, “Common Controls for the Output Modules”. For details on device-specific controls, see “Device-specific controls” on page 437 below.
- **Media Feed**—see “Media Feed” on page 439.
- **Media Cut**—see “Media Cut” on page 439.
- **Feed and Cut**—see “Feed and Cut” on page 439.
- **View**—see “Ultre SCSI Imagesetter Devices Viewer” on page 440.

See “Module shortcut menus” on page 18 for details on the other general options in the pop-up.

34.2.1 Device-specific controls

To configure the Ultre SCSI Imagesetter module, choose **Setup** from the Ultre SCSI Imagesetter module pop-up. The Setup for Ultre SCSI Imagesetter dialog box opens. The options in the Device tab (**Alt+D**) allow you to select device-specific settings:

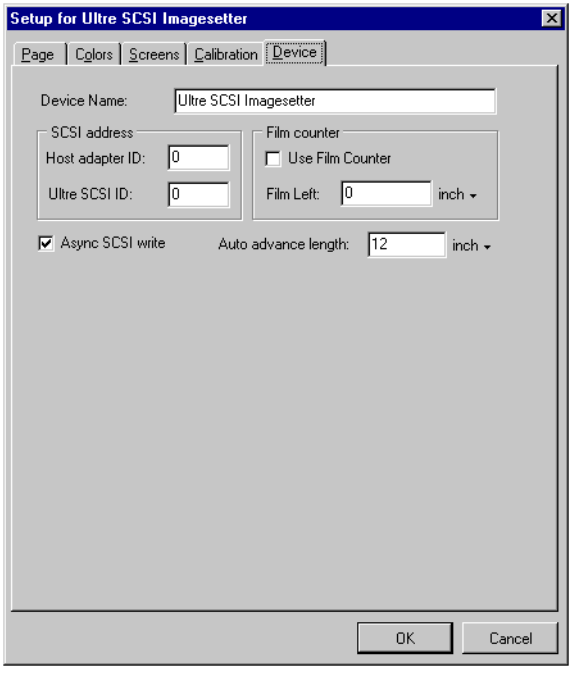


Figure 34.3 Device tab for the Ultre SCSI Imagesetter module

The options in the Device tab fall into categories—output options, and media tracking options—as described in the following subsections.

34.2.1.1 Output options

Device name

Allows you to enter a new name for the module. The module name is used wherever the module is referenced: on the workspace; in log files; when linking to and from other modules.

SCSI address

Host Adapter ID: A host adapter is the card that connects your computer to the SCSI-bus. An example would be a PCI SCSI host adapter like the Adaptec 2940UW. Adaptec set all their host adapters to ID 7 by default. Enter the ID for your host adapter.

Ultre SCSI ID: Several devices can be connected to the SCSI interface. Enter the SCSI ID for your Ultre device.

Async SCSI write

Select this check box to start the next operation before the current one is completed. Operations are not synchronized.

Auto Advance Length

Enter the length of film to be advanced between jobs. Choose the units of measurement from the menu alongside this text box.

34.2.1.2 Media tracking options

Film Counter

Use Film Counter:

Select this check box if you wish to track the media in your device. To do this, you must advance the media using the **Media Feed** or **Feed and Cut** pop-up menu controls, as described in "Media Feed" on page 439. You must not advance the media using the imagesetter controls.

You must set the **Film Left** counter whenever you change a film roll.

Film Left: Enter the length of the film roll when the film is changed. Choose the units of measurement from the menu alongside this text box. Once you have initially set the **Film Left** counter, it changes to reflect the amount of film left in the imagesetter.

34.2.2 Media Feed

If you choose **Media Feed** in the Ultre SCSI Imagesetter module pop-up menu, the media is advanced by the amount specified in the control panel of the imagesetter. If you wish to track the media in your imagesetter, you must always advance the media using this menu option, or the **Feed and Cut** option, described below, rather than advancing the media using the imagesetter controls.

34.2.3 Media Cut

If you choose **Media Cut** in the Ultre SCSI Imagesetter module pop-up menu, the imagesetter is instructed to cut the media. If you wish to advance the media before cutting it, use the **Feed and Cut** menu option, described below.

34.2.4 Feed and Cut

If you choose **Feed and Cut** in the Ultre SCSI Imagesetter module pop-up menu, the media is advanced by the amount specified in the control panel of the imagesetter and then cut. If you wish to track the media in your imagesetter, you must always advance the media using this menu option or the **Media Feed** option, described above, rather than advancing the media using the imagesetter controls.

34.2.5 Ultre SCSI Imagesetter Devices Viewer

If you choose **View** from the Ultre SCSI Imagesetter module pop-up menu, the Ultre SCSI Imagesetter Devices dialog box opens:

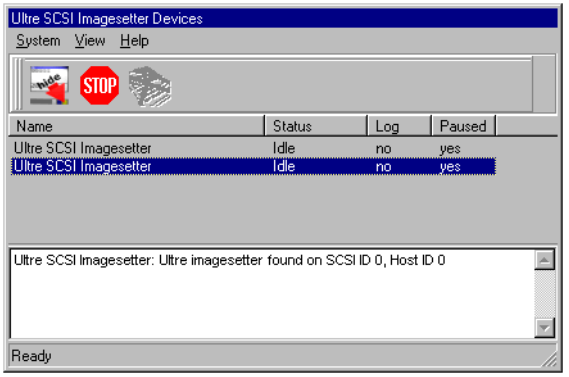


Figure 34.4 Ultre SCSI Imagesetter Devices Viewer

This dialog box allows you to view the status of all the Ultre SCSI Imagesetter modules that are in the workspace. This dialog consists of a table listing the status of each Ultre SCSI Imagesetter module, as well as a log monitor window in which you can view progress and error messages. All messages in the log monitor window are prefixed by the name of the module to which they refer.

Name

This column lists the name of the Ultre SCSI Imagesetter module that appears in the workspace. The name of the Ultre SCSI Imagesetter module is specified in the Device tab, as described in “Output options” on page 437.

Status

This column indicates the status of the module.

Log

This column indicates whether or not the module is set to record all messages in a log file (`yes/no`). See “Log file directory” on page 15 for details on how to specify the location and other properties of the log file.

Paused

This column indicates whether or not the module has been paused (`yes/no`). You can click the **GO/STOP** button to start or stop the module.

There are also some device-specific controls that are accessible from the **System** menu.

Media Feed

If you choose this menu option, the media in the imagesetter is advanced, as discussed in “Media Feed” on page 439.

Media Cut

If you choose this menu option, the media in the imagesetter is cut, as discussed in “Media Cut” on page 439.

For further details on the general controls in the dialog, see “Monitoring job processing in MWF” on page 17.